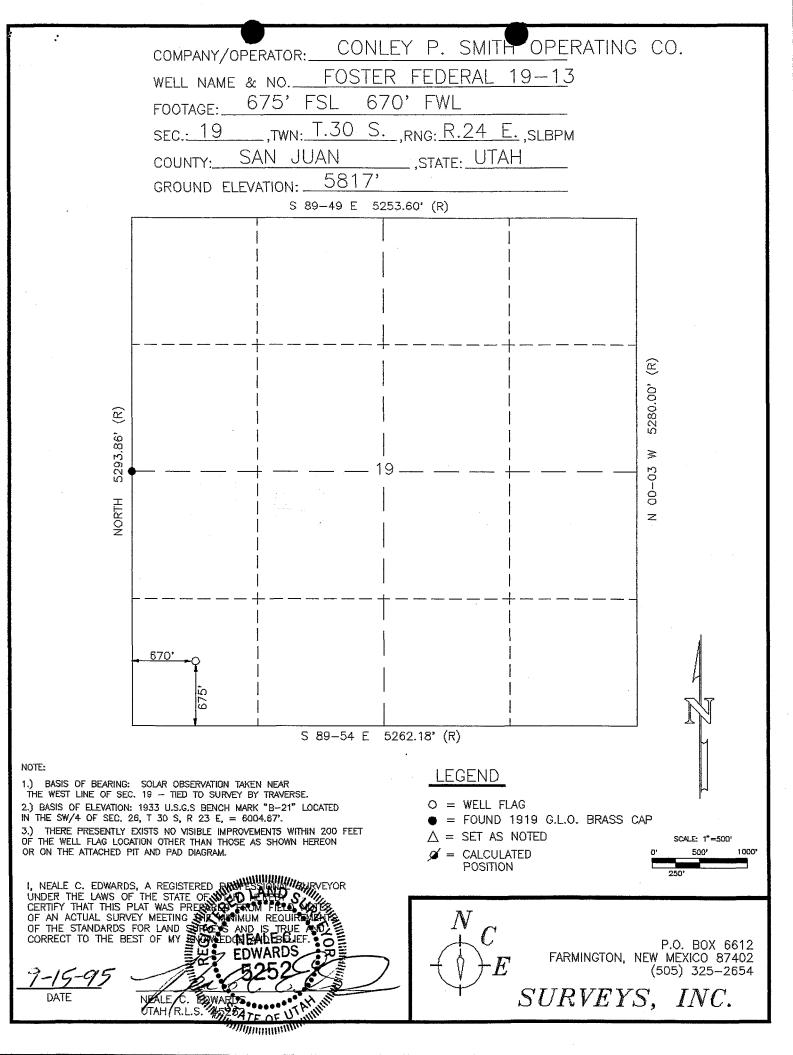
• •	· · · · · · · · · · · · · · · · · · ·					er en
Form 3160-3		•	س.	The Trigger	Statickan	Form approved.
December 1990)		TED STATES	- 11	TE (Piner Anstru	ctions of	Budget Bureau No. 1004-013 Expires: December 31, 1991
	DEPARTMENT	COF THE IN	TER!	<b>DRI</b>		S HEASE DESIGNATION AND SERIAL NO.
	BUREAU OF	LAND MANAGE	MEN	SEP 201	995	
APP	LICATION FOR P	ERMIT TO DI	RILL			6. IF INDIAN, ALLOTTER OR TRIBE NAME
a. TYPE OF WORK					C O NAIN	ING
D. TYPE OF WELL	RILL 🔯	DEEPEN 🗌	8	DIV. OF OIL, GA	Dami	INGNIT AGREEMENT NAME
OIL XX	GAS WELL OTHER		SING	GLE XX MULTIP	LE	8. FARM OR LEASE NAME, WELL NO.
NAME OF OPERATOR	VIII.	**	2011	E 124 ZONE		Foster Federal #19-1
	BY P. SMITH OPERA	TING COMPANY				9. API WELL NO.
ADDRESS AND TELEPHONE N	· <del></del>			303-296	1434	
LOCATION OF WELL	n St., Suite 2360 (Report location clearly and	Denver, CO	8020	02 800-648-6	421	10. FIELD AND POOL, OR WILDCAT
At surface	675' FSL & 670'		,	oc requirements.		Lisbon area 11. smc., r., m., or ble.
At proposed prod. 2		IND (BNSN)		•		AND SURVEY OR AREA
	same					Section 19 T30S R24E
	S AND DIRECTION FROM NEAD		FFICE*			12. COUNTY OR PARISH 13. STATE
. DISTANCE FROM PRO	south of LaSal,		6. NO.	OF ACRES IN LEASE	1 17 No c	San Juan Utah
PROPERTY OR LEASE (Also to peacent d	LINE, FT.	670'		70.70		HIS WELL
. DISTANCE FROM PR	OPOSED LOCATION* DRILLING, COMPLETED,			POSED DEPTH	20. ROTA	40 RY OR CABLE TOOLS
OR APPLIED FOR, ON T	THIS LEASE, FT.	NA	560	00'	Ro	otary
	whether DF, RT, GR, etc.)					22. APPROX. DATE WORK WILL START
. 581	.7' GR					Oct. 20, 1995
		PROPOSED CASING	AND	CEMENTING PROGRA	vā	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	· _	SETTING DEPTH		QUANTITY OF CEMENT
22' 12 1/4"	16"conductor 8 5/8" J-55	unknown		+30'	to sur	
7 7/8"	5 1/2" J-55	24# 15.5	-	2000' T D		face(+-870 sx) 5 1500'(+-280 sx)
es wi Th We te li be wr	th applicable rule attached information and condition cation. Bond coving provided by (itten by Underwrite)	uction in thi les and regul mation will h nley P. Smith ns of the lea verage pursua Conley P. Smith iters Indemni	lationopein Operase cant the Color,	cea. Operation on s of State a fully provide erating Companion in to 43 CFR 3104 Operating Comp	ns will nd Fede intende y is re conjunc for le any und	be in accordance eral agencies.  ed operating procedures.  esponsible under the etion with this appasse operations is der a lease bond
yeu	y Keelev Bob Vernon	FOR	_	perations Man	300×	0/10/05
SIGNED		TITI.E		peractors rall	ader	DATE 9/18/95
_	leral or State office use)	17				
PERMIT NO. 4.	3-037-317	b /	_ AF	PPROVAL DATE	· · · · · · · · · · · · · · · · · · ·	
		licant holds legal or equita	ble title (	to those rights in the subject !	ease which wo	ould entitle the applicant to conduct operations th
APPROVED BY	R) attheu	4	hoe	Teum Engn	reer	-DATE 11/16/95
	/	*See Instruction	ons O	n Reverse Side		



# CONLEY P. SMITH OPERATING COMPANY ADDITIONAL INFORMATION

UTU-71433
Foster Federal #19-13
SWSW Section 19-T30N-R24E
Lisbon Area
San Juan County, Utah

#### 1. ESTIMATED TOPS FOR IMPORTANT GEOLOGIC FORMATIONS

Navajo	178'	Hermosa	3464'
Wingate	614'	Upper Ismay	4667'
Chinle	964'	Lower Ismay	4820'
Shinarump	1434'	Paradox	4918'
Cutler	1538'	T.D.	5600'

2. ANTICIPATED DEPTHS OF WATER, OIL, GAS OR MINERAL-BEARING FORMATIONS

Chinle

964'

Possible Water

Ismay

4667'

011

3. OPERATOR'S MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT
As per BLM Onshore Order #2, 43 CFR, Part 3160, and due to known
area pressures, the blowout preventer and related equipment will be
in accordance with a 2M system. Expected hydrostatic bottom hole
pressure will be +-2300 PSI. Lack of gas pressure encountered in area
wells indicates a gas flare pit/vessel is not needed. Pressure tests
will be conducted every 30 days if drilling time dictates.

#### 4. PROPOSED CASING AND CEMENTING PROGRAM

Conductor	Unknown wt.	16"	30'	Unknown gr	ade
Surface	24.0#/ft.	8 5/8"	2000'	New J-55	ST&C
Production	15.5#/ft.	5 1/2"	0' - T.D.'	New J-55	LT&C

#### CONLEY P. SMITH OPERATING COMPANY

Foster Federal #19-13

Additional Information

Page 2

#### 4. PROPOSED CASING AND CEMENT PROGRAM (con't.)

Cement Program:

16" conductor at 30' cement to surface Class G

8 5/8" surface (2000') cement to surface 870 sx total:

670 sx 65/35, 6% gel, 2% CaCl,

.25# sk Silica; 200 sx Class G 2% CaCl;

100% excess

5 1/2 Production (5600') 1500' cement fillup TD to +-4100'

280 sx Class G, .5% B-14, 25% excess

#### 5. TYPE AND CHARACTERISTICS OF THE CIRCULATING FLUID

Mud Program:

Surface to 2000' Water, Gel & Lime;

Mud weight 8.4-9.0#/gal.; 32-50 vis.

2000' - 4000'

Water & Polymer

Mud weight 8.4-8.5#/ gal.; 28-32 vis., 8-10 cc

water loss

4000' - 5600'

Anco gel with liquid Polymer

Mud weight 8.6-9.0; 34-45 vis.; 8-10 cc water loss Quantities of mud kept on location will equal the volume of the active mud system. Mud returns will be monitored by rig personnel and a pit level indicator.

#### 6. TESTING, LOGGING AND CORING PROGRAMS TO BE FOLLOWED

Drill stem tests will be run if determined necessary.

The well will not be cored.

Dual Induction w/GR & SP will be run from T.D. to surface, a Compensated Sonic and Neutron Density/GR over possible productive formations, and additional logs run as determined necessary at the time.

Additional Information Page 3

6. TESTING, LOGGING AND CORING PROGRAMS TO BE FOLLOWED (con't.)

During completion, potential sections of the Ismay formation

will be perforated as necessary. Fracture treatment, pressures,

volumes, etc., will be determined at completion time.

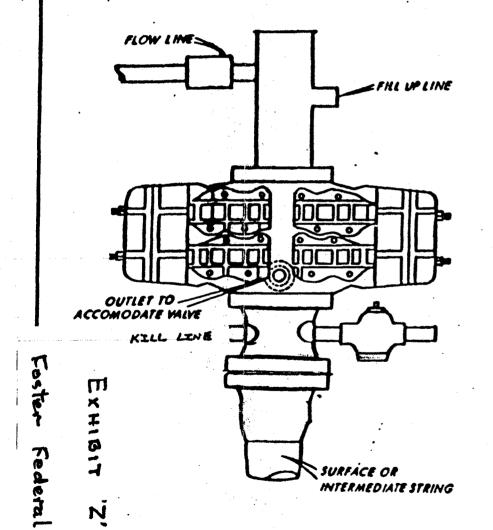
All potential productive formations will be cemented.

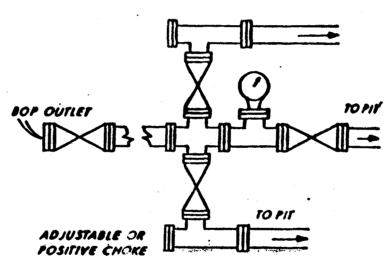
# 7. ANY ABNORMAL PRESSURES OR TEMPERATURES EXPECTED No abnormal pressures or temperatures have been noted in wells drilled in this area. No hazards such as hydrogen sulfide gas are known to be present.

#### 8. ADDITIONAL INFORMATION

The well will be drilled under the supervision of a company representative. All precautions will be taken to insure a safe and workmanlike operation.

Casing will be tested to .22 PSI per foot, or 1500#, whichever is greater, and not to exceed 70% of the internal yield pressure.





- 1. BOP VALVES AND ALL WORKING FITTINGS SHOULD BE IN GOOD WORKING CONDITION,
- 1. ALL BOLTS TO BE INSTALLED AND TIGHT.
- J. ALL VALVES TO BE 3000# W.P. OR BETTER.
- 4. AFTER NIPPLING UP TEST RAMS AND PRESSURE UP TO 1000 F FOR 15 MINUTES AND CHECK FOR POSSIBLE LEAKS.
- 5. ALL CREW MEMBERS TO BE FAMILIAR WITH BOP AND ACCUMULATORS.
- 4. KEEP HOLE FULL ON TRIPS.
- 7. USE ONLY FLANGE TYPE FITTINGS .
- 8. RECHECK BOLTS FOR TIGHTNESS BEFORE 5000 FT, OR ENTERING PRODUCTION ZONES.
- P. WHEN DRILLING USE.

TOP PREVENTER \* DRILL PIPE RAMS BOTTOM PREVENTER BLIND RAMS

10. WHEN RUNNING CASING USE.

TOP PREVENTER CASING RAMS BOTTOM PREVENTER BLIND RAMS

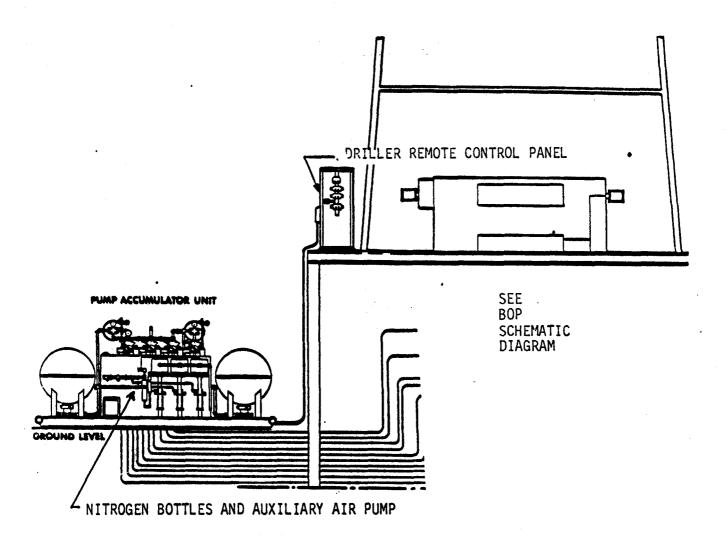


EXHIBIT 'Z-A'
Foster Federal '19-13

## MULTI-POINT SURFACE USE AND OPERATIONS PLAN CONLEY P. SMITH OPERATING COMPANY

UTU-71433
Foster Federal #19-13
SWSW Section 19-T30N-R24E
Lisbon Area
San Juan County, Utah

#### 1. EXISTING ROADS

Refer to the attached maps, EXHIBITS "A" & "B", for the access route from Moab, Utah, to the drillsite. Existing roads and trails will be used to within 600' of the proposed site. All roads will be maintained in their present state and upgraded by lightly flatblading where necessary.

#### 2. PLANNED ACCESS ROADS

The section of existing dirt road from the Lisbon Oil Field paved road in the NESE Section 21, to the SWSW Section 19, will be used in its existing condition where possible. Upgrading will consist of lightly flat-blading if necessary.

New road from the NE corner of the SWSW Section 19 to the wellpad will be gained by flat-blading the sagebrush covered surface. The brush will be piled at a site to be determined. A low water crossing will be needed immediately after leaving the existing trail. The wellpad will be entered on the V-Door end on grade. The +-600' of new road is on flat surface and will consist of up to a 20' wide disturbed area with travel surface being 12' to 14'. This Federal oil and gas lease contains all of Section 19, so if required, we will apply for offlease use of the road from the east line of Section 19 to the paved road in the NESE Section 21.

There will be no turnouts built. No new cattleguards or gates will be installed. An existing Powder River gate, located in the access road dividing Section 20 and Section 21, will be used in its present condition.

### CONLEY P. SMITH OPERATING COMPANY

Foster Federal #19-13

#### 2. PLANNED ACCESS ROADS (con't.)

If surfacing material is needed, it will be obtained from contractors with all necessary permits.

#### 3. LOCATION OF EXISTING WELLS

Conley P. Smith does not own or operate wells in this area. Known wells within 1 mile are shown on EXHIBIT 'B' and consist of 1 8957' dry hole drilled in 1963 by Humble Oil and Gas (NWSE Section 30).

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

New facilities will be built on the north and east edges of the location and will consist of a treater, pit, and tanks. All facilities will be placed on cut portions of the location. Pipelines laid off the location will be approved by BLM.

#### 5. LOCATION AND TYPE OF WATER SUPPLY

It is anticipated the drilling water will be obtained from a source near LaSal. The exact location and details will be known soon and submitted to BLM. Water will be hauled.

#### 6. SOURCE OF CONSTRUCTION MATERIALS

Fencing materials are the only construction materials anticipated. They will be purchased from local contractors and/or suppliers.

We do not plan to use any foreign materials such as gravel, asphalt, etc. However, if they are needed, they will be purchased from local reputable contractors with all necessary permits.

#### 7. METHODS OF HANDLING WASTE DISPOSAL

Drilling cuttings and fluids will be disposed of and contained in the reserve pit.

#### 7. METHODS OF HANDLING WASTE DISPOSAL (con't.)

Water produced during testing will be put in the reserve pit.

Permanent water disposal will be in accordance with NTL-2B. Possible oil produced during swab testing will be put in test tanks located on the drillsite.

All sewage is to be contained in a chemically treated porta-potty.

Garbage and waste materials will be contained in a metal trash cage on location and disposed of in the nearest authorized dump when full. Trash will not be thrown in the reserve pit.

The reserve pit will be lined with native mud if possible. BLM will be notified if pit materials encountered during construction may need additional lining material. Reserve pit walls will be sloped at no greater than 3 to 1.

#### 8. ANCILLARY FACILITIES

Ancillary facilities will be temporary and may consist of 2 self-contained trailer houses on the drillsite. No camps or airstrips are to be constructed.

#### 9. WELLSITE LAYOUT

Refer to EXHIBIT "C" for cross sections of the drill pad with cuts and fills, as well as soil stockpiles.

Refer to EXHIBIT "D" for the location of all necessary access roads, rig equipment, living facilities, parking areas, and rig orientation.

The drillsite will be identified with a regulation well sign.

Access onto the location will be from the northeast on the derrick laydown side of the location.

#### 10. PLANS FOR RESTORATION OF SURFACE

The top 6" of soil material will be stockpiled as shown on EXHIBIT  $^{\circ}$ C".

### 10. PLANS FOR RESTORATION OF SURFACE (con't.) Access road soil will be placed adjacent to the road.

After drilling, all equipment not needed for production will be removed.

The rat hole and mouse hole will be filled immediately after rig release.

Unused portions of the location will be reclaimed as soon as possible. The reserve pit will be dry before rehabilitation is commenced.

The access road will be reclaimed after any surfacing material is removed. The newly constructed road will be closed to traffic after reclamation is accomplished. Existing dirt road will be left in its present condition and not closed to traffic.

Disturbed areas will be recontured to their natural slopes with top soil spread evenly. Prior to seeding, all disturbed areas will be scarified and left with rough surface. Seed will be broadcast or drilled between October 1 and February 28, or as specified by BLM. If broadcast, the seed will be covered with a drag or similar coverage device. As recommended by BLM's Jeff Brown, the following seed mixture will be used:

- 4# Four Wing Salt Bush
- 4# Crested Wheat Grass
- 1# Indian Rice Grass
- 1# Wild Sunflower

A regulation dry hole marker will be installed below ground level as suggested by Mr. Brown.

Any oil in the pit will be removed immediately or fenced and flagged.

#### 11. SURFACE OWNERSHIP

The entire access road and location are on surface owned by the Federal Government and regulated by the Moab Bureau of Land Management office.

#### 12. OTHER INFORMATION

On September 13, 1995, onsite inspection was conducted with Jeff Brown, BLM, and Jerry Keeler, operator's representative, present.

The proposed drillsite lies 1/4 mile north and east of Hatch Wash and is in a flat sagebrush covered area bordered by rocky outcrops.

There are no known occupied dwellings, historical or archeological sites in the impacted area. Archeologist Steve Fuller was present during the location staking and onsite inspection and did reveal he will recommend clearance of the disturbed areas. If historical or archeological sites are uncovered during construction, the operator will be responsible for informing all persons in the area who are associated with the project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. The operator will immediately stop work that might further disturb such materials and contact the authorized officer (AO). Within 5 working days, the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
- a timeframe for the authorized office to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and the mitigation is appropriate.

#### 12. OTHER INFORMATION (con't.)

If the operator wishes at any time to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

A dike will be constructed completely around the production facilities (i.e. production tanks, water tanks, and/or heater treater). The dikes for the production facilities will be constructed of compacted subsoil, hold the capacity of the largest tank, and be independent of any back cut.

All permanent above-the-ground structures, tank batteries, etc., that will remain longer than 6 months will be painted Desert Brown (Munsell standard color No. 10 yr 6/3). The exception being that the Utah Occupation Health and Safety Act Rules and Regulations are to be complied with where special safety colors are required.

#### 13. LESSEE'S OR OPERATOR'S REPRESENTATIVE

CONLEY P. SMITH OPERATING COMPANY Bob Vernon, Operations Manager 1125 17th St., Suite 2360 Denver, CO 80202 303-296-1434

NTL-6 REPRESENTATIVE Jerry Keeler Box 927 Newcastle, WY 82701 307-746-9337

### CONLEY P. SMITH OPERATING COMPANY

Foster Federal #19-13

#### Page 7

#### CERTIFICATION

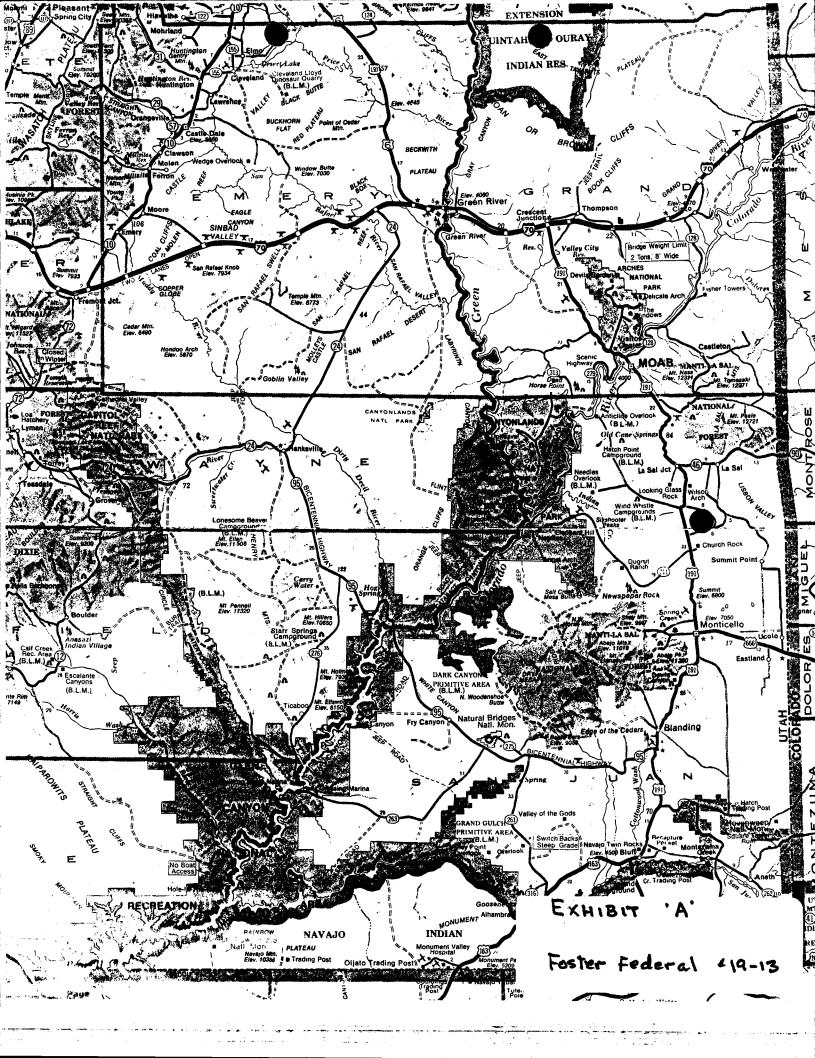
I hereby certify that I, or persons under my direct supervision, have inspected the proposed wellsite and access road; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Conley P. Smith Operating Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

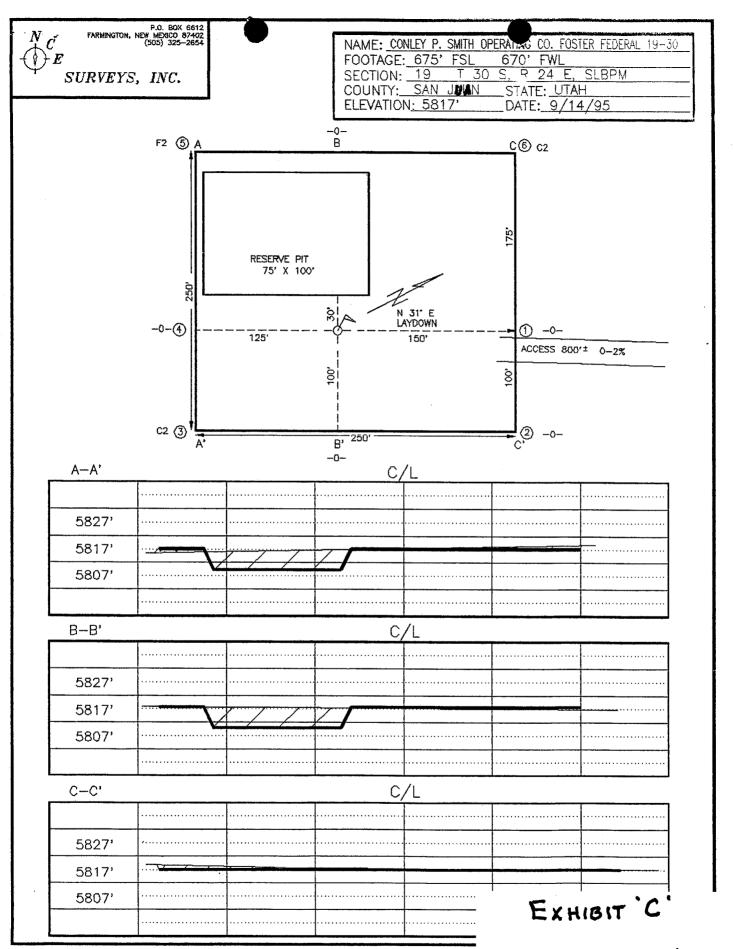
Bob Vernon

Operations Manager 9/19/95

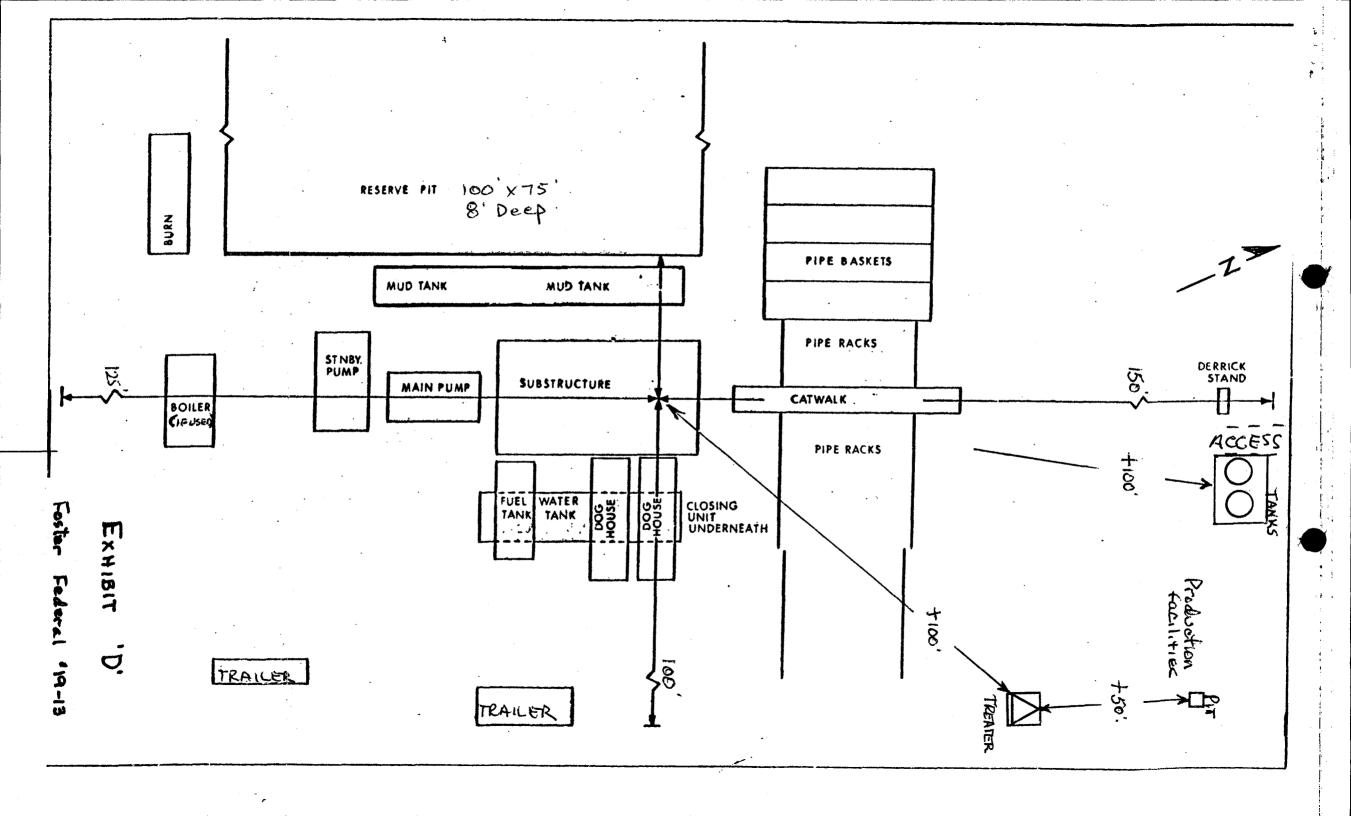
Name and Title

Date



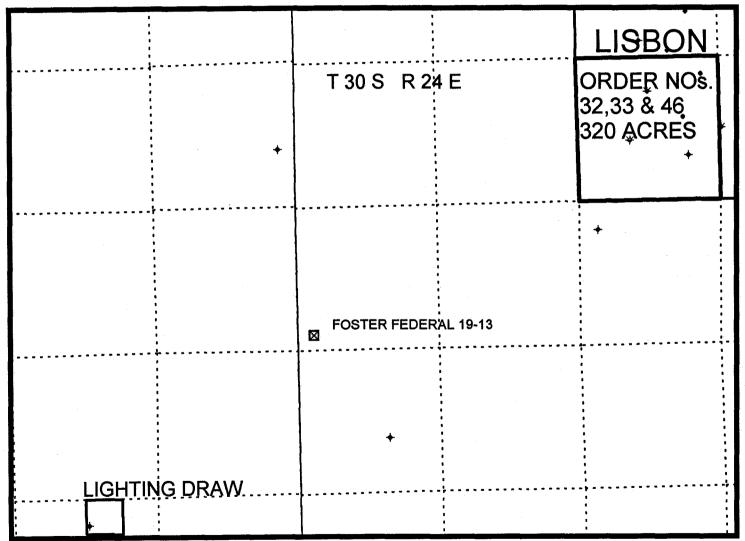


Foster Federal 419-13



APD RECEIVED: 09/20/95	API NO. ASSIGNED: 43-037-31767
WELL NAME: FOSTER FEDERAL #19-13 OPERATOR: CONLEY P. SMITH OPERATIN	
PROPOSED LOCATION: SWSW 19 - T30S - R24E SURFACE: 0675-FSL-0670-FWL BOTTOM: 0675-FSL-0670-FWL SAN JUAN COUNTY WILDCAT FIELD (001)  LEASE TYPE: FED LEASE NUMBER: UTU - 71433  PROPOSED PRODUCING FORMATION: PRDX	INSPECT LOCATION BY: / / TECH REVIEW Initials Date Engineering Geology Surface
RECEIVED AND/OR REVIEWED:    V	LOCATION AND SITING:  R649-2-3. Unit: R649-3-2. General.  R649-3-3. Exception.  Drilling Unit.  Board Cause no: Date:
COMMENTS:	
STIPULATIONS:	

CONLEY P. SMITH OPERATING EXPLORATORY DRILLING SEC. 19, T30S, R24E SAN JUAN COUNTY. STATE SPACING





STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS & MINING

DATE: 9/21/95

#### STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: CONLEY P. SMITH OPER. | Well Name: FOSTER FED 19-13

Project ID: 43-037-31767 | Location: SEC. 19 - T30S - R24E

Design Factors: <u>Design Parameters:</u> : 1.125 Mud weight (9.00 ppg) : 0.468 psi/ft Collapse Shut in surface pressure : 2287 Burst : 1.00 psi : 1.80 Internal gradient (burst): 0.059 psi/ft 8 Round (J) Buttress : 1.60 (J) Annular gradient (burst) : 0.000 psi/ft Other : 1.50 (J) Tensile load is determined using air weight Service rating is "Sweet" Body Yield : 1.50 (B)

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	e Joir		Depth (feet)	Drift (in.)	Cost
1	5,600	5.500	15.50	J-55	5 LT&C	2	5,600	4.825	
	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Load (kips)	Tension Strgth (kips)	s.f.
1	2618	4040	1.543	2618	4810	1.84	86.80	217	2.50 J

Prepared by : MATTHEWS, Salt Lake City, Utah

Date : 11-16-1995

Remarks

Minimum segment length for the 5,600 foot well is 1,500 feet.

SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas

temperature of 113°F (Surface 74°F, BHT 152°F & temp. gradient 1.400°/100 ft.)

String type: Production

The mud gradient and bottom hole pressures (for burst) are 0.468 psi/ft and

2,618 psi, respectively.

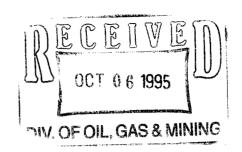
NOTE:

The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.

Costs for this design are based on a 1987 pricing model. (Version 1.07)

Conley P. Smith Operating Company

October 3, 1995



Utah Board of Oil & Gas & Mining 1203--3 Triad Ctr., Suite 350 Salt Lake City, Utah 84180

ATTN: Ronald J. Firth

Talka Angelo de de

RE:

Lease Serial No. UTU-71433

Surety Bond No.: B05499
BLM Bond Number UT1034

Dear Mr. Firth:

Further to your request, we are forwarding a copy of the decision letter from the BLM accepting our Oil and Gas Individual Lease Bond effective September 25, 1995, relative to referenced lease.

Should you need any further information, please contact the undersigned.

Sincerely,

Marilynn Landers

Lease Records Supervisor

:ml

attachment

CC: Jerry Keeler

Box 927

New Castle, Wyoming 82701



#### IN REPLY REFER TO: UTU-71433 (UT-923)

### United States Department of the Interior

# CEIVED

#### **BUREAU OF LAND MANAGEMENT**

Utah State Office 324 South State, Suite 301 Salt Lake City, Utah 84111-2303

SEP 27 1995

#### DECISION

Principal:

Conley P. Smith Operating Co.

1125 17th Street, Suite 2360

Denver, CO 80202

Surety:

Underwriters Indemnity Company

8 Greenway Plaza, Suite 400

Houston, TX 77046

Lease Serial No.: UTU-71433

Bond Amount:

\$10,000

Surety Bond No.:

B05499

BLM Bond Number:

UT1034

#### Oil and Gas Individual Lease Bond Accepted

A \$10,000 oil and gas bond covering the above principal for oil and gas lease UTU-71433 was filed in this office September 25, 1995. The bond has been examined and is accepted effective the date of filing.

The bond will be maintained by this office and constitutes coverage of all operations conducted by the principal on lease UTU-71433.

If you have any questions, please contact Irene Anderson of this office at 801-539-4108.

Chief, Branch of Mineral Leasing Adjudication

Form 3160-3 (December 1990)

### UNITED STATES (Other instruc

SUBMIT IN TRIPLICATE\*
(Other instructions on

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

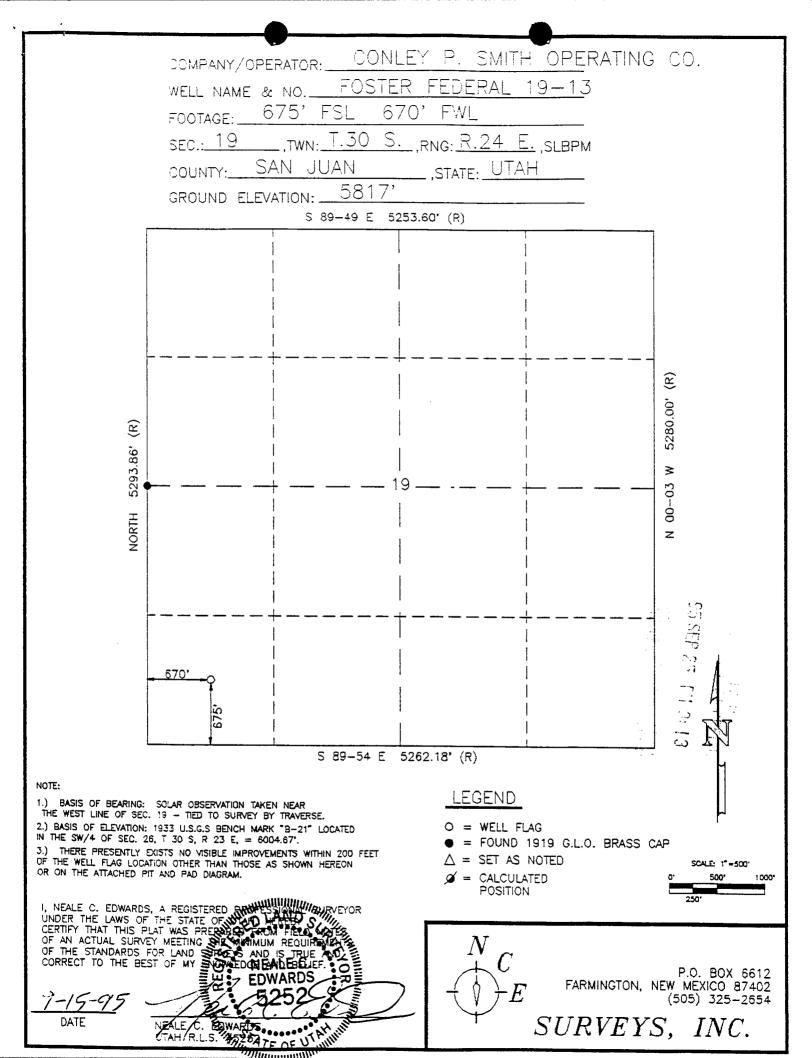
Citiled States	 Expires. December 51, 199
DEPARTMENT OF THE INTERIOR	5. LEASE DESIGNATION AND SERIAL N

	<del>-</del> '	3	J. LEAGE DEGIGNATION	AND BEETAL NO.	
BUREAU OF LAND MANAG	บาบ-71433				
APPLICATION FOR PERMIT TO I	ORILL OR DEEPEN		6. IF INDIAN, ALLOTTER	OR TRIBE NAME	
la. TYPE OF WORK					
DRILL XX DEEPEN [		7. UNIT AGREEMENT N	AMB		
b. TYPE OF WELL					
OIL GAS WELL OTHER	SINGLE MULTIF	LE _	8. FARM OR LEASE NAME, WELL NO.		
2. NAME OF OPERATOR			Foster Federal #19-13		
CONLEY P. SMITH OPERATING COMPAN	JY	-	9. API WELL NO.	<u> </u>	
3. ADDRESS AND TELEPHONE NO.					
OF CHARACTER AND TOOLS IN THE CONTROL OF CON		Į.			
1125-17th St., Suite 2360, Denver, C	<u> 20 80202 800-648-6</u>	5421	10. FIELD AND POOL, C	R WILDCAT	
4. LOCATION OF WELL (Report location clearly and in accordance with At surface	th any State requirements.*)		Lisbon area		
675' FSL & 670' FWL (SWSV		11. SEC., T., R., M., OR : AND SURVEY OR AL			
At proposed prod. zone					
same			Section 19 T	30S R24E	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POS	T OFFICE*		12. COUNTY OR PARISH	13. STATE	
10 miles south of LaSal, Utah			San Juan	Utah	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST	16. NO. OF ACRES IN LEASE		F ACRES ASSIGNED		
PROPERTY OF LEASE LINE, FT. (Also to nearest drig, unit line, if any) 670	1470.70		40		
18. DISTANCE FROM PROPOSED LOCATION®	19. PROPOSED DEPTH	20. котан	Y OR CABLE TOOLS		
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NA		Ro	otary		

CONDITIONS OF AP DIV. OF OIL GAS & MININ  $\overline{24}$ . Keel FOR Bob Vernon Operations Manager (This space for Federal or State office use) Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY: **Associate District Manager** /S/ WILLIAM C. STRINGER 8 1995 NOV APPROVED BY \*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the

matter within its inrisdiction.



Conley P. Smith Operating Company Foster Federal No. 19-13 Lease U-71433 SW/SW Section 19, T30S, R24E San Juan County, Utah

#### CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Conley P. Smith Operating Company is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT 1034 (Principal - Conley P. Smith Operating Company) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

#### A. <u>DRILLING PROGRAM</u>

- 1. The kill line shall be of two-inch diameter or greater, and shall have at least one kill line valve.
- 2. Although the Ismay zone at this location is not expected to have hydrogen sulfide, H2S was recently encountered in the Ismay approximately seven miles from your location. This is presumed to be a localized phenomenon resulting from the migration of Mississippian gas along a fault. Nevertheless, caution should be exercised upon penetrating the Ismay

#### B. SURFACE USE PLAN

- 1. The operator will contact the San Juan County Road Department for an encroachment permit for the use of San Juan County roads.
- 2. Surface disturbance and vehicular travel will be limited to the approved location and access road. Any additional area needed must be approved by the Area Manager prior to initiating the new surface disturbance.
- 3. The top 3 inches of topsoil will be stockpiled separately from the vegetation along the side of the location.
- 4. No reserve pit lining will be required.
- The access road will be rehabilitated or brought to Resource (Class III)
  Road Standards within sixty (60) days of dismantling the drilling rig. If
  upgraded, the road must be maintained at these standards until the well
  is properly abandoned. If this time frame cannot be met, the Area
  Manager will be notified so that temporary drainage control can be
  installed along the access road.
- 6. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.6. When the well is abandoned, the abandonment marker must be at least four feet above restored ground level and must be inscribed with the following: operator name, lease number, well name and surveyed description (township, range, section and either quarter-quarter or footages).
- 7. All site security guidelines identified in 43 CFR § 3162.7-5 and Onshore Oil and Gas Order No. 3 shall be followed.
- 8. If a gas meter run is constructed, it will be located on lease within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and will be buried downstream of the meter until it leaves the pad. Meter runs will be housed and/or fenced. The gas meter shall be calibrated prior to first sales and shall be calibrated quarterly thereafter. All gas production and measurement shall comply with the provisions of 43 CFR § 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.

#### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

<u>Building Location</u>- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

<u>Spud</u>- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

<u>Daily Drilling Reports</u>- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices— There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

<u>Drilling Suspensions</u>- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

<u>Undesirable Events</u>- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

<u>Cultural Resources</u>- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

First Production- Should the well be successfully completed for production, the District Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

<u>Produced Water</u> Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the District Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

<u>Plugging and Abandonment-</u> If the well is completed as a dry hole, plugging instructions must be obtained from the District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Office within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

TABLE 1

#### NOTIFICATIONS

Notify Rich McClure at (801) 259-2127 for dirt work and reclamation; and notify Jeff Brown at (801) 587-2141 for the remaining actions:

- 2 days prior to commencement of dirt work, construction and reclamation:
- 1 day prior to spudding;
- 50 feet prior to reaching surface casing depth;
- 3 hours prior to testing BOPE

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, contact the person listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones,	Petroleum Engineer		(801) 259-6111 (801) 259-2214
Gary Torres	, Petroleum Engineer	Office: Home:	(801) 587-2141 (801) 587-2705

Conley P. Smith Operating Company Foster Federal No. 19-13 Lease U-71433 SW/SW Section 19, T30S, R24E San Juan County, Utah

#### CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Conley P. Smith Operating Company is considered to be the operator of the above well and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by UT 1034 (Principal - Conley P. Smith Operating Company) via surety consent as provided for in 43 CFR § 3104.2.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR § 3106.7-2 continuing responsibility are met.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application must be filed for approval.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR § 3100), Onshore Oil and Gas Orders, lease terms, notices to lessees, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to field representatives to insure compliance.

#### A. <u>DRILLING PROGRAM</u>

- 1. The kill line shall be of two-inch diameter or greater, and shall have at least one kill line valve.
- 2. Although the Ismay zone at this location is not expected to have hydrogen sulfide, H2S was recently encountered in the Ismay approximately seven miles from your location. This is presumed to be a localized phenomenon resulting from the migration of Mississippian gas along a fault. Nevertheless, caution should be exercised upon penetrating the Ismay

#### C. REQUIRED APPROVALS, REPORTS AND NOTIFICATIONS

Required verbal notifications are summarized in Table 1, attached.

<u>Building Location</u>- Contact the Resource Area, Natural Resource Protection Specialist at least 48 hours prior to commencing construction of location.

<u>Spud</u>- The spud date will be reported to the Resource Area Office 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding, regardless of whether spud was made with a dry hole digger or big rig.

<u>Daily Drilling Reports</u>- Daily drilling reports shall detail the progress and status of the well and shall be submitted to the District Office on a weekly basis.

Monthly Reports of Operations- In accordance with Onshore Oil and Gas Order No. 1, this well shall be reported on Minerals Management Service (MMS) Form 3160, "Monthly Report of Operations," starting the month in which operations commence and continuing each month until the well is physically plugged and abandoned. This report will be filed directly with MMS.

Sundry Notices- There will be no deviation from the proposed drilling and/or workover program without prior approval. "Sundry Notices and Reports on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR § 3162.3-2. Safe drilling and operating practices must be observed.

<u>Drilling Suspensions</u>- Operations authorized by this permit shall not be suspended for more than 30 days without prior approval of the Authorized Officer. All conditions of this approval shall be applicable during any operations conducted with a replacement rig.

<u>Undesirable Events</u>- Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be immediately reported to the Resource Area in accordance with requirements of NTL-3A.

<u>Cultural Resources</u>- If cultural resources are discovered during construction, work that might disturb the resources is to stop, and the Area Manager is to be notified.

<u>First Production</u>- Should the well be successfully completed for production, the District Office will be notified when the well is placed in producing status. Such notification may be made by phone, but must be followed by a sundry notice or letter not later than five (5) business days following the date on which the well is placed into production.

A first production conference will be scheduled as soon as the productivity of the well is apparent. This conference should be coordinated through the Resource Area Office. The Resource Area Office shall be notified prior to the first sale.

Well Completion Report- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR § 3162.4-1. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. When requested, samples (cuttings and/or samples) will be submitted to the District Office.

Venting/Flaring of Gas- Gas produced from this well may not be vented/flared beyond an initial, authorized test period of 30 days or 50 MMcf, whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the authorized test period, the well may be ordered shut-in until the gas can be captured or approval to continue the venting/flaring as uneconomic is granted. In such case, compensation to the lessor shall be required for that portion of the gas that is vented/flared without approval and which is determined to have been avoidably lost.

Produced Water - Produced waste water may be confined to an unlined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted to the District Office for approval pursuant to Onshore Oil and Gas Order No. 7.

Off-Lease Measurement, Storage, Commingling- Prior approval must be obtained from the District Office for off-lease measurement, off-lease storage and/or commingling (either down-hole or at the surface).

<u>Plugging and Abandonment</u>- If the well is completed as a dry hole, plugging instructions must be obtained from the District Office prior to initiating plugging operations.

A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Office within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR § 3162.6. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

TABLE 1

#### NOTIFICATIONS

Notify Rich McClure at (801) 259-2127 for dirt work and reclamation; and notify Jeff Brown at (801) 587-2141 for the remaining actions:

- 2 days prior to commencement of dirt work, construction and reclamation;
- 1 day prior to spudding;
- 50 feet prior to reaching surface casing depth;
- 3 hours prior to desting BOPE

If the person at the above number cannot be reached, notify the Moab District Office at (801) 259-6111. If unsuccessful, contact the person listed below.

Well abandonment operations require 24 hour advance notice and prior approval. In the case of newly drilled dry holes, verbal approval can be obtained by calling the Moab District Office, Branch of Fluid Minerals at (801) 259-6111. If approval is needed after work hours, you may contact the following:

Eric Jones, Petroleum Engineer Office: (801) 259-6111 Home: (801) 259-2214

Gary Torres, Petroleum Engineer Office: (801) 587-2141

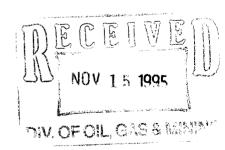
Home: (801) 587-2705

Form 3160-5 (June 1990)	DEPARTMEN'	ED STATES T OF THE INTERIOR AND MANAGEMENT	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993  5. Lease Designation and Serial No.				
	orm for proposals to dri	AND REPORTS ON WELLS II or to deepen or reentry to a different reservoir. R PERMIT—" for such proposals	6. If Indian, Allottee or Tribe Name				
	SUBMIT	IN TRIPLICATE	7. If Unit or CA, Agreement Designation				
i. Type of Well Oil Well Gas Well	Other		8. Well Name and No.				
2. Name of Operator  Con  3. Address and Telephone	Foster Federal #19-13 9. API Well No.						
4. Location of Well (Foota	Et., Suite 2360, Deage, Sec., T., R., M., or Survey De	enver, CO 80202 1-800-648-6421 scription)  WSW)	10. Field and Pool, or Exploratory Area  Lisbon field area  11. County or Parish, State				
12. CHECK	APPROPRIATE BOX(s	s) TO INDICATE NATURE OF NOTICE, REPO	San Juan Co., UT RT, OR OTHER DATA				
	SUBMISSION	TYPE OF ACTION					
Notice	of Intent	Abandonment Recompletion	Change of Plans New Construction				
	uent Report	Plugging Back Casing Repair Altering Casing	Non-Routine Fracturing Water Shut-Off Conversion to Injection				
CIDEACE DI	DE CUANCE	Other	Dispose Water (Note: Report results of multiple completion on Well				

Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

We are requesting to be allowed to run 1500' of 8 5/8" surface casing in place of the 2000' shown on the APD dated 9/18/95. The 1500' will be cemented with +-660 sx of cement and additives as indentified in the APD.



		Common and the second designation and the second constitution of the second sec			
Title	Operations Manager	Date	9/27/95		
Tirle	Associate District Manager	Date	11011 8		
		The second secon	Associate District Manages		

Form 3160-5 (June 1990)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED Budget Bureau No. 1004-0135

Expires: March 31, 1993 5. Lease Designation and Serial No.

UTU	71433

**SUNDRY NOTICES AND REPORTS ON WELLS** 

6. If Indian, Allottee or Tribe Name

	R PERMIT—" for such proposals	
SUBMIT	7. If Unit or CA, Agreement Designation	
1. Type of Weil  Oil  Well  Well  Other		8. Well Name and No.
2. Name of Operator		Foster Federal #19-13
Conley P. Smith Operating Com  3. Address and Telephone No.	pany	
1125 17th Street, Suite 2360,	Denver, Colorado 80202	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey De	escription)	Lisbon Field Area 11. County or Parish, State
675' FSL & 670' FWL (SW SW) S	ection 19 T30S, R24E	San Juan County, Utah
12. CHECK APPROPRIATE BOX(	s) TO INDICATE NATURE OF NOTICE, RE	PORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTI	ION
X Notice of Intent	Abandonment Recompletion	Change of Plans New Construction
Subsequent Report	Plugging Back Casing Repair	Non-Routine Fracturing Water Shut-Off
Final Abandonment Notice	Altering Casing	Conversion to Injection
	Other	Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
give subsurface locations and measured and true verting to the drift of well to be drift of the	Ill pertinent details, and give pertinent dates, including estimated date of scal depths for all markers and zones pertinent to this work.)*  Illed is estimated approximately 40 The Paradox approximately 5000±.	
		Sarvu - 2
		RECENTED

0-15 & M.N Operations Mgr. 11-3-95 Branch of Fluid Minerals (This space for Federal or State office use) Moab District Approved by \_\_\_\_\_ Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



# DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt Ted Stewart Executive Director James W. Carter

355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340 801-359-3940 (Fax) Division Director 801-538-5319 (TDD)

November 16, 1995

Conley P. Smith Operating Company 1125 17th Street, Suite 2360 Denver, Colorado 80202

Re: Foster Federal 19-13 Well, 675' FSL, 670' FWL, SW SW, Sec. 19, T. 30 S,

R. 24 E., San Juan County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-31767.

Sincerely,

Associate Director

lwp **Enclosures** 

San Juan County Assessor

Bureau of Land Management, Moab District Office

WAPD



Operator: _		Conley P. Smith Operating Company							
Well Name &	Number:	<u>Fost</u>	er Fed	eral 1	19-13			-	
API Number:		43-0	37-317	767				_	
Lease:		Fed	eral U	TU-7	1433			_	
Location:	sw sw	Sec.	19	Т.	30 S.	R.	24 E.		

#### **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

#### 2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

#### 3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

#### DIVISION OF OIL, GAS AND MINING

#### SPUDDING INFORMATION

Name of Company: CONLEY SMITH	OPERATING	
Well Name: FOSTER FEDERAL 1	9-13	·
Api No. 43-037-31767		
Section 19 Township 30	OS Range 24E	County SAN JUAN
Drilling Contractor FORE	E CORNERS	
Rig #7		
SPUDDED: Date 12/5/95	<del></del>	
Time_10:00 PM	<del>-</del>	
How <u>ROTARY</u>		
Drilling will commence		- -
Reported by BOB MOORE		<del>-</del>
Telephone #		<del>-</del>
Date: 12/5/95	SIGNED: FR	<b>M</b>

43-037-31767

## CONLEY P. SMITH OPERATING COMPANY DAILY DRILLING REPORT

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date: To File

	Present Depth	
12-01-95	0'	Day 0. (1) Knut & Sons Dirt Contractors: Started building roads & location on 11-29-95. Should complete dirtwork on 12-4-95. (2) Drilling Contractor: Four Corners Drilling Co. Expects to MI rig #6 or #7 & spud well approximately 12-6-95. (3) Company Drilling Foreman: Bob Moore - Cellular: 801-770-1469. Rig Time: 24 hrs., Total; 24 hrs. API #43-037-31767. Daily Cost: \$1850. Cum Cost: \$5300.
12-02-95	0'	Building road & location.
12-03-95	0,	Building road & location.
12-04-95	0'	Will finish building road & location and start MI rig Tuesday, 12-5-95. Cum. Cost: \$17,900.
12-05-95	0'	Day O. MI Four Corners Drilling Company Rig #7. Finished hauling in gravel over gas pipeline crossings. Finished location & reserve pit. Started MI Four Corners Rig #7. Should spud well tonight or Wednesday morning. Rig Time: 24 hrs. Finished location & MI rig. Total: 24 hrs. Daily Cost: \$1500. Cum. Cost: \$19,400.
12-06-95	370'	Day 1. Drilling. Drilled 370' in last 24 hrs. Formations: Sand & rock. Mud Wt. Water. Daily Water Cost: \$1200. Cum. Water Cost: \$1200. Bit 1-A 12-1/4" Reed HP-51. Made 370' in 6 hrs. (61.6'/hr.). Wt. on bit 10,000#, RPM 110, Pump Pressure 1400, SPM 60, Liner Size 6 x 8". Surveys: 1 degree @ 101', 1 degree @ 252'. String Assembly 3-8" D.C. & 12-6-1/2" D.C. Put up fence along pipeline right-of-way to keep trucks off pipelines. SD moving in rig to build up third pipeline crossing for 2 hrs.; order by Napco & BLM. Finish digging reserve pit. MI & RU. Spudded well @ 10:30 p.m. 12-5-95. Rig Time: Drilling 6 hrs., Rig Serv. 1/2 hr., Surveys 1/2 hr., Total: 7 hrs. from spud. Daily Cost: \$10,962. Cum. Cost: \$30,362.
12-07-95	1510'	Day 2. Running 8-5/8" surface csg. Made 1140' in last 24 hrs. Formations: Rock & sand. Mud Wt. Water. Bit 1-A 12-1/4" Reed HP-51 (New) made 1510' in 27-3/4 hrs. (54.4'/hr.). Wt. on bit 50,000#, RPM 110, Pump Press, 1600, SPM 60, Liner Size 6". Surveys: 1 degree @ 553' & 950'. String Assembly: Bit & drill collars. No signs of water while drilling surface csg. Rig Time: Drilling 21-3/4 hrs., Tripping 1 hr., Rig. Serv. 1/4 hr., Circ. 1/4 hr., Surveys 3/4 hr., Total 24 hrs. Daily Water Cost: \$1750, Cum. Water Cost: \$2950. Daily Mud Cost: \$1500, Cum. Mud Cost: \$1500. Daily Cost: \$44,685, Cum. Cost: \$75,047.
12-08-95	1510'	Day 3. GIH w/7-7/8" bit. Made 0' in last 24 hrs. Mud Wt. water. Bit #1 7-7/8" ST F-2 (new) made 0'. Surveys: 1/2 degree @ 1510'. Ran 37 jts. of 8-5/8" 24# J surface csg. (1510'). Ran Dowell Guide Shoe & insert float. Landed csg. @ 1510' KB. Ran 10 latch on

centralizers @ 1491', 1387', 1268', 1150', 1027', 913', 788', 663', 541', & 471'. RU Dowell & cemented csg. w/565 sxs of Class "C" Lite w/6% Poz, 2% Kcl & .25#/sx of D-29. Tailed in w/200 sxs of Class "G" w/2% Kcl & .25#/sx D-29 @ 6 BPM. Displaced cement w/fresh water. Bumped plug @ 860 psi--held OK. Had good cement returns (approx. 11 bbls. excess). Job completed @ 11:00 a.m. 12-7-95. Cut off csg. & weld on 11"

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date:

	Present Depth				
12-08-95 (cont'd)	1510'	out OK. Rig Time:	Tripping 1 hr., un 8-5/8" csg. & NU 4.5 hrs.	manifold to 2000 psi. Repairs 5 hrs., Test E 3 hrs., Cementing 8- , Total 24 hrs. Cum. Cost: \$90,	30P 4.5 5/8" csg.
12-09-95	2660'	Wt. 8.7. Bit #1 7-7 (53.5'/hr.). Wt. on 102, Liner Size 6". @ 2487'. String As	/8" Smith F-2 ( Bit 42,000, RP Surveys: 3/4 ( sembly: 20 6- Drilling 21-1/2	at 24 hrs. Sand & sha (new) made 1150' in M 75, Pump Press. 1 degree @ 1986' & 1- 1/2" D.C. Mud logge hrs., Rig Serv. 1/2 hatal 24 hrs. Cum. Water Cost: Cum. Mud Cost: Cum. Cost:	21-1/2 hrs. 500, SPM 1/4 degree er is on r., Surveys
12-10-95	3600'	Wt. 8.7. Bit #1 7-7, hrs. (46.9'/hr,). Wt. SPM 102, Liner Size	/8" Smith F-2 ( on Bit 42,000 6". Surveys: ) 6" D.C. Rig	24 hrs. Sand & shal new) made 2090' in b, RPM 75, Pump Pres 1-1/4 degrees @ 29 Time: Drilling 23-1/4 al 24 hrs. Cum. Water Cost: Cum. Mud Cost: Cum. Cost:	e. Mud 44-1/2 ss. 1550, 91' & 3524', hrs., Rig
12-11-95	4150'	8.7, Vis 29. Bit #1 made 2397' in 51-1, (new) in @ 3907-41 on Bit 42,000, RPM Surveys: 1-1/2 degr Will mud-up @ 4250 wellsite geologist: N	7-7/8" Smith F /2 hrs. (46.5'/h 50' made 243' 75, Pump Pres ees @ 4021'. '. RU flare line lissouri - 3906 Serv. 1/2 hr., R	24 hrs. Sand & shale -2 (new) in @ 1510-3 r.). Bit #2 7-7/8" Sm in 7-3/4 hrs. (311.2 s. 1550, SPM 102, L String Assembly: 20 e & test line. Formati '. Rig Time: Drilling epairs 4 hrs., Surveys rs. Cum. Water Cost: Cum. Cost:	3907' hith F-3 '/hr.}. Wt. iner Size 6". 0 6" D.C. on Top by 14-3/4 hrs., s 1/4 hr.,
12-12-95	4575'	8.8, Vis 36, WL 12, 3907-4575' made 66 42,000, RPM 70, Pu Survey: 3/4 degree	PH 9.5. Bit #2 58' in 30-1/2 h mp Press. 165 @ 4521'. Strii Drilling 22-3/4	24 hrs. Honkker Trail 27-7/8" Smith F-3 (noise. (20.9'/hr.), Wt. of 0, SPM 102, Liner Sing 19 Assembly 20 6" D 14 hrs., Rig Serv. 3/4 if Cum. Water Cost: Cum. Mud Cost: Cum. Cost:	il. Mud Wt. ew). In @ on Bit ze 6", .C. Mud up nr., Survey

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date: Well File

	Present Depth				
12-08-95 (cont'd)	1510'	out OK. Rig Time: hrs., WOC 4 hrs., R 2 hrs., Well on head	Tripping 1 hr., un 8-5/8" csg.	manifold to 2000 psi Repairs 5 hrs., Test 3 hrs., Cementing 8- ., Total 24 hrs. Cum. Cost: \$90	BOP 4.5 -5/8" csg.
12-09-95	2660'	Wt. 8.7. Bit #1 7-7 (53.5'/hr.). Wt. on 102, Liner Size 6". @ 2487'. String As	/8" Smith F-2 ( Bit 42,000, RP Surveys: 3/4 ( sembly: 20 6- Drilling 21-1/2	st 24 hrs. Sand & sh (new) made 1150' in M 75, Pump Press. 1 degree @ 1986' & 1- 1/2" D.C. Mud logge hrs., Rig Serv. 1/2 h stal 24 hrs. Cum, Water Cost Cum, Mud Cost: Cum, Cost:	21-1/2 hrs. 500, SPM -1/4 degree er is on hr., Surveys
12-10-95	3600,	Wt. 8.7. Bit #1 7-7 hrs. (46.9'/hr.). Wt. SPM 102, Liner Size	de 940' in last /8" Smith F-2 ( on Bit 42,000 6". Surveys: ) 6" D.C. Rig	24 hrs. Sand & shal new) made 2090' in 9, RPM 75, Pump Pres 1-1/4 degrees @ 29 Time: Drilling 23-1/4 at 24 hrs. Cum. Water Cost Cum. Mud Cost:	le. Mud 44-1/2 ss. 1550, 91' & 3524' hrs., Rig : \$4390 \$3284
12-11-95	4150'	Day 6. Drilling. Mac 8.7, Vis 29. Bit #1 made 2397' in 51-1, (new) in @ 3907-41 on Bit 42,000, RPM Surveys: 1-1/2 degr Will mud-up @ 4250 wellsite geologist: M	de 550' in last 7-7/8" Smith F /2 hrs. (46.5'/h 50' made 243' 75, Pump Pres ees @ 4021'. '. RU flare line dissouri - 3906 Serv. 1/2 hr., R	Cum. Cost:  24 hrs. Sand & shal-2 (new) in @ 1510-ir.). Bit #2 7-7/8" Snin 7-3/4 hrs. (311.2 s. 1550, SPM 102, L String Assembly: 20 & test line. Formatifully Formatifully English 4 hrs., Survey rs.  Cum. Water Cost: Cum. Cost:	3907' nith F-3 '/hr.). Wt. Liner Size 6". 0 6" D.C. Ion Top by 14-3/4 hrs., s 1/4 hr,,
12-12-95	4575'	8.8, Vis 36, WL 12, 3907-4575' made 66 42,000, RPM 70, Pu Survey: 3/4 degree @ 4250'. Rig Time: 1/2 hr., Total 24 hrs. Daily Water Cost:	de 425' in last PH 9.5. Bit #2 58' in 30-1/2 h mp Press. 1650 @ 4521'. Strir Drilling 22-3/4	24 hrs. Honkker Tra 2 7-7/8" Smith F-3 (n rs. (20,9'/hr.). Wt. o 0, SPM 102, Liner Si ng Assembly 20 6" D I hrs., Rig Serv. 3/4 I Cum. Water Cost:	il. Mud Wt. ew). In @ on Bit ze 6". J.C. Mud up hr., Survey
12-13-95	4920'	Daily Mud Cost: Daily Cost: Day 8. Drilling. Mad 8.9, Vis 36, WL 10, (new) in @ 3907-492 on Bit 42,000, RPM	PH 12, FC 2/32 20'. Made 101	Cum. Mud Cost: Cum. Cost: 24 hrs, Lower Ismay 2. Bit #2 7-7/8" Smi 3' in 54 hrs. (18 7'/	\$4956 \$170,897 Mud Wt. th F-3

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date:

Present

Depth

12-13-95 (cont'd)

4920'

String Assembly 20 6" D.C. Fmn. Tops by Wellsite Geologist: Upper Ismay - 4728', Lower Ismay - 4885'. Background gas runs from 10-175 units. Rig Time: Drilling 23-1/2 hrs., Rig Serv. 1/2 hr., Total 24 hrs.

\$0 \$1033 Cum. Water Cost: Cum. Mud Cost:

\$4390 \$5989

Daily Cost:

\$10,073

Cum. Cost;

\$180,970

Daily Water Cost: Daily Mud Cost:

43-031-31961

## CONLEY P. SMITH OPERATING COMPANY DAILY DRILLING REPORT

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date: Well Jila

Present Depth

12-13-95 (cont'd) 4920'

String Assembly 20 6" D.C. Fmn. Tops by Wellsite Geologist: Upper Ismay - 4728', Lower Ismay - 4885', Background gas runs from 10-175 units. Rig Time: Drilling 23-1/2 hrs., Rig Serv. 1/2 hr., Total 24 hrs.

**Daily Water Cost:** 

\$0

Cum. Water Cost: Cum. Mud Cost: \$4390 \$5989

Daily Mud Cost: Daily Cost: \$1033 \$10,073

Cum. Cost:

\$180,970

12-14-95 4991'

Day 9. Made 71' in last 24 hrs. GIH w/DST #1. Lower Ismay. Mud Wt. 9.0, Vis 55, WL 10, PH 10, FC 2/32, Solids 5, CL 240, PV 16, YP 14, Gels 7/16, Oil 0, LCM 0, Sand .25, Bit #2 7-7/8" Smith F-3 (new) in @ 3907-4991'. Made 1084' in 59 hrs. (18.4' per hr.). Wt. on Bit 42,000, RPM 72, Pump Press. 1700, SPM 102, Liner Size 6". Survey: Misrun @ 4991'. String Assembly: Baker Oil Tool DST Tools w/6" D.C. Top of Lower Ismay by wellsite geologist - 4963'. Had drlg. break (5 min./ft, to 1-3 min./ft,) from 4975-4980' (w/3' of good drig, break). Circ. bottoms up. Drill 10' & circ. samples up from 4990'. Had good shows in samples. Gas increased from 10-380 units. Decided to run DST. Made trip to surface. GIH & LD bad drill pipe. Condition hole & mud for DST #1 from 4930-4991'. POH & PU DST tool. GIH w/DST tool for DST #1. Rig Time: Drilling 5 hrs., Tripping 6-1/2 hrs., Rig Serv. 1/4 hr., Circ. 6-1/4 hrs., Mixing Mud 3-1/2 hrs., Survey 1/4 hr., LD Drill Pipe 1-1/4 hrs., PU Test Tool 1 hr., Total 24 hrs.

Daily Water Cost:

\$600

Cum. Water Cost: Cum. Mud Cost:

\$4990 \$7428

Daily Mud Cost: Daily Cost: \$1439 \$7368

Cum. Cost:

\$188,338

**が住じ-14-95 THU** 

**39** 

## ATTN KEN/BOB

## ROCKY MOUNTAIN GEO-ENGINEERING CORP.

2450 Industrial Blvd. Grand Junction: Colorado 81505 (303)243-3044

### ZONE OF INTEREST SHEET

			•	ZONE	OF INTEREST	NO 1
COMPANY	COMI EV D SM	III Open			,,	
WELL	CONLEY P. SM FOSTER FEDER	AL TIOLE	NG CO.		,	
LOCATION	SW SW SEC 19,	T205 D245				,, ,
	DIE DIE GLC.19,	1303-R24E				"
INTERVAL From:	4963		To: 4971	3		_
DRILL RATE Abo	ve 3 M/FT	Thru <u>2</u>	5 TO 1.25 M	VPT	Below	5 MATT
MUD GAS - CHRO	MATOGRAPH I	)ATA				
Tota	Cí	C2		7		
Before 61	3101	413	220	C4	CS	Other
During 450	22886	3046	1623	25	NONE	
After 74	3747	499	266	183	TSTM	
		do ,,	200	30	NONE	L
Type gas increase; Variation in zone;	Gradual Strady	Sharp X Erratic	X Incr	ense [	Decrease []	
Fluoresc	ence: Mineral	Even	X Cu	ır :	Stream	
	none	Spott		F	rlow X	
	book		pot		mod	
	falr	X	fal)		ast	
	peog		god		Register over 1	
	in spl 70		€0	lor MI.K	Y YEL	
%	in lith 50	<u> </u>			LOW DIF	
	color					
Stain none [	poor X even	fair spty	good K light	live X dark	X dend	(° . T
Peresity poor	fair X	good []	Kind: INT	L-RR PP VL	<u>IG</u>	
LITHOLOGY DO	DL-lt-mbm micel-	micsue see of	vi alankee A	بالدروجاري	**	
xl-micsuc, al dol, eln, v	L-lt-mbm, micxl-	C. L. DEC VI	A A A E E E	y ip, v si sity	LS-crm-wh-tan	cutal mic
			SAMPLE	QUALITY:	GOOD	
Notified KEN ROE	BERTS	<b> @</b>	11:30	Hrs.	Date: _12/1	3/95
Romarks BESTD	RILLING BREAD	C VERY THIN	(3') , SAMP	LE SHOW S	TICHTLY WEVE	
Zone described by	DAVE MEADE				(at) pist management of 1 4660 t man	## \####

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date: well file

Present Depth

12-13-95 (cont'd) 4920'

String Assembly 20 6" D.C. Fmn. Tops by Wellsite Geologist: Upper Ismay - 4728', Lower Ismay - 4885'. Background gas runs from 10-175 units. Rig Time: Drilling 23-1/2 hrs., Rig Serv. 1/2 hr., Total 24 hrs.

Daily Water Cost:

\$0

Cum. Water Cost:

\$5989

Daily Mud Cost: Daily Cost: \$1033 \$10,073 Cum. Mud Cost: Cum. Cost:

\$180,970

12-14-95 4991'

Day 9. Made 71' in last 24 hrs. GIH w/DST #1, Lower Ismay. Mud Wt. 9.0, Vis 55, WL 10, PH 10, FC 2/32, Solids 5, CL 240, PV 16, YP 14, Gels 7/16, Oil 0, LCM 0, Sand .25. Bit #2 7-7/8" Smith F-3 (new) in @ 3907-4991'. Made 1084' in 59 hrs. (18.4' per hr.). Wt. on Bit 42,000, RPM 72, Pump Press. 1700, SPM 102, Liner Size 6". Survey: Misrun @ 4991'. String Assembly: Baker Oil Tool DST Tools w/6" D.C. Top of Lower Ismay by wellsite geologist - 4963'. Had drlg. break (5 min./ft. to 1-3 min./ft.) from 4975-4980' (w/3' of good drlg. break). Circ. bottoms up. Drill 10' & circ. samples up from 4990'. Had good shows in samples. Gas increased from 10-380 units. Decided to run DST. Made trip to surface. GIH & LD bad drill pipe. Condition hole & mud for DST #1 from 4930-4991'. POH & PU DST tool. GIH w/DST tool for DST #1. Rig Time: Drilling 5 hrs., Tripping 6-1/2 hrs., Rig Serv. 1/4 hr., Circ. 6-1/4 hrs., Mixing Mud 3-1/2 hrs., Survey 1/4 hr., LD Drill Pipe 1-1/4 hrs., PU Test Tool 1 hr., Total 24 hrs.

Daily Water Cost:

\$600

Cum, Water Cost: Cum. Mud Cost:

\$4990 \$7428

Daily Mud Cost: Daily Cost:

\$1439 \$7368

Cum. Cost:

\$188,338

12-15-95 5030'

Day 10. Made 34' in last 24 hrs. Logging. Lower Ismay. Mud Wt. 9.0, Vis 55, WL 10, PH 10, FC 2/32, Solids 5, PV 16, YP 14, Gels 7/16, Sand Trace. Bit #2 7-7/8" Smith F-3 (used) in @ 3907-5030'. Made 1123' in 63 hrs. (17.8'/hr.). Wt. on Bit 42,000, RPM 70, Pump Press. 1700, SPM 102, Liner Size 6". Survey: 3/4 degree @ 5030'. Ran DST #1 from 4930-4991' (Lower Ismay). Opened test tool @ 8:24 a.m. 12-14-95. Opened w/1" blow, 3" blow after 4 min., 8" after 6 min. BB-10 min., 6 oz. psi-12 min. & 7 oz. after 15 min. IF - 15 min., FF - 60 min., ISI - 60 min., FSI - 120 min. Opened tool for final flow at 9:41 a.m. Strong blow. 15 oz. after .5 min., 14 oz. after 5 min., 11 oz. in 10 min., 10 oz. in 15 min., 8 oz. in 20 min., 7 oz. in 25 min., 6 oz. in 30 min., 5 oz. in 40 min., & 5 oz. to end of final flow. Close tool for 2 hrs. Pulled packers loose & POH. Results of DST #1 as follows:

<u>Initial</u>

<u>Final</u>

IH - 2393' psi

FH - 2317' psi FF - 81-106' psi

IF - 67-90' psi ISI - 221' psi

FSI - 292' psi

Drill Pipe Recovery:

Recovered 150' of mud. 60' was slightly oil & heavy GC mud. Recovered 750' of gas (no gas to surface).

Top Sample - Rw = .52 @ 70 degrees F (12,000 PPM)

Bottom Sample - Rw = .70 @ 55 degrees F (10,000 PPM)

Sampler Recovery:

Pressure in Sampler - 50 psig

Total Volume of Sampler - 2500 cc

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date:

Present

Depth

12-15-95 (cont'd) 5030'

Recovery Volume in Sampler - 2200 cc of mud w/trace of oil & gas. Rw = .6 @ 58 degrees F (12,000 PPM)

Make up water Rw = 3.5 @ 50 degrees F (2200 PPM)

Mud Pit Rw = .40 @ 72 degrees F (15,000 PPM)

BHT = ---- degrees F

Good Mechanical Test

Drill to 5030' & condition hole for logging. Now running 1st log.

Loggers TD = 5,034'. Driller TD = 5030'.

Rig Time: Drilling 4 hrs., Tripping 9-1/2 hrs., Rig Serv. 1/4 hr., Circ. 2 hrs., DST #1 4-1/4 hrs., POH w/DST & LD Test Tools 3-1/2 hrs., Survey 1/4 hr., Logging 1/4 hr., Total 24 hrs.

Daily Water Cost:

\$3645 \$363

Cum. Water Cost: Cum. Mud Cost:

\$8635 \$7791

Daily Mud Cost: Daily Cost:

\$10,391

Cum, Cost:

\$190,729

Foster Federal #19-13 S.W. Lisbon Prospect Section 19, T30S-R24E San Juan County, Utah AFE No. 31001 Casing Point Date:

Well File

Present Depth

12-15-95 (cont'd) 5030'

Recovery Volume in Sampler - 2200 cc of mud w/trace of oil & gas.

Rw = .6 @ 58 degrees F (12,000 PPM)

Make up water Rw = 3.5 @ 50 degrees F (2200 PPM)

Mud Pit Rw = .40 @ 72 degrees F (15,000 PPM)

BHT = ---- degrees F Good Mechanical Test

Drill to 5030' & condition hole for logging. Now running 1st log.

Loggers TD = 5.034'. Driller TD = 5030'.

Rig Time: Drilling 4 hrs., Tripping 9-1/2 hrs., Rig Serv. 1/4 hr., Circ. 2 hrs., DST #1 4-1/4 hrs., POH w/DST & LD Test Tools 3-1/2 hrs., Survey 1/4 hr., Logging 1/4 hr., Total 24 hrs.

Daily Water Cost:

\$3645

Cum. Water Cost:

\$8635 \$7791

Daily Mud Cost: Daily Cost:

\$363 \$10,391

Cum. Mud Cost: Cum, Cost:

\$190,729

12-16-95 5030'

Day 11. P & A. Mud Wt. 9.0, Vis 50, WL 10, PH 9.5, FC 2/32, Solids 5, PV 7, YP 6, Liner Size 6". String Assembly: Completed logging well w/Schlumberger. Ran Dual Induction GR & Compensated Neutron-GR/Litho-Density-Caliper logs. Permission to P & A obtained from Gary Tornes w/BLM @ 10:00 a.m. 12-15-95. Well was P & A as follows:

Plug #	Sxs of Cement	Depth
1	155	5034-4637'
2	94	3305-3011'
3	40	1560-1460'
4	10	50' to surface

P & A operations witnessed by Mr. Jeff Brown w/the BLM. Rig Time: Tripping 3 hrs., Logging 6-1/2 hrs., WOC 4 hrs., LD Dcs 2-1/4 hrs., Set Cement Plugs to P & A 8-1/4 hrs., Total 24 hrs.

Daily Water Cost: Daily Mud Cost:

\$800 \$0

Cum. Water Cost: \$9435

\$7791

Daily Cost:

\$15,308

Cum. Mud Cost: Cum. Cost:

\$206,037

12-17-95 O. P & A

Day 12. Release rig. Fence 4th side of reserve pit & install dry hole marker. Released rig @ 10:30 a.m. 12-16-95. Rig Time: Finish P & A well 2 hrs., Clean mud tanks, etc. 2-1/2 hrs., Total 4-1/2 hrs. FINAL REPORT. Attached is Schlumberger's Log Analysis. Daily Cost: \$9119 Cum. Cost: \$215,156

Log Analysis

: - r 4--

	P	SMI		PERAT	ING	CD.	(APo			R FE	D #19-13
FIELD		ı	Car	SAN	JUA	NA NA		544	UTA	H	
DEPTH	,		Rw	R		ф <sub>В</sub>	$\phi_{N}$		% POROSITY	% WATER	REMARKS
		٠		·							
4\$16-18			.05i	11		ક	25		16,5	41	hydrocarbo
4818-20				20		4	20		12	42	<b>24</b>
4826-28				5	_	4	23		13.5	74	wet
4828-30				3		6	23		14.5	89	11
483032				. 3		6	24	·	15	86	11
483234				4		9	22		15.5	72	Ц
4834-36				\$.5	5	2	21		11.5	83	11
4836-38				6		4	21		13.5	68	· 1[
4838-40				8		3.5	18		11	72	
4840-42	<u> </u>			20	,	2	16		9	56	* **
4960-62				12		0	13		7	92	wet
4962-64				30		- 3	10		4.5	91	. 11
4964-66				100	>	- 3	2		0.5		-
4966-68				150	>	-3	ユ		0.5	_	
4968-70	1	<u> </u>		130	<b>&gt;</b>	0	6		3.5	56	wet
4970-72				130	>	-1	5		2.5	78	**
4972-74				301	>	1	5		3,5	37	show
4974-76				600	>	1	6		4	23	show
4976-78				700	>	0	6.5		4	21	
4978-80				20	5	1	9		5	32	13

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the occuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our General Terms and Conditions as set out in our current Price Schedule.

15 DEC	95	DENVER	ENGINEER	Foole
4W# 1343-F				



Post Office Box 718
Farmington, New Mexico 87499
1732 East Main Street
Farmington, New Mexico 87401
Telephone (505) 325 0216

DEC 1 9 1995

DIV OF OIL, GAS & MINING

COMPANY NAME: Conley P. Smith

WELL NAME: Foster Fed. 19-13 CONTRACTOR: Four Corners #7

DST NO.: 1

K.B. ELEVATION:

SPOT: SW SW

FORMATION: Lower Ismay

**SEC.:** 19

TWP.: 305

RNG.: 24E

FIELD:

COUNTY: San Juan

STATE: Utah

FLOW NO. 1: 15

MIN.

SHUT-IN NO. 1: 60

MIN.

FLOW NO. 2: 60

MIN.

SHUT-IN NO. 2: 120

MIN.

BOTTOM HOLE TEMP.: 110

TOP CHOKE: 1/8

**BOTTOM CHOKE: 3/4** 

SIZE HOLE: 7 7/8

CASING SIZE & WT.: 8 5/8 36#

SIZE & WT. D.P. OR TUBING: 4 1/2 16.6#

I.D. OR D.C.: 2 1/4

LENGTH OF D.C. ABOVE TOOL: 568

TOTAL DEPTH: 4990

INTERVAL TESTED: 4930 - 4990

TYPE OF TEST: Bottom Hole Conventional DST

MUD WEIGHT: 9.0+

VISCOSITY: 55

TOOL OPENED @: 08:24:00

COMPANY NAME: Conley P. Smith WELL NAME: Foster Fed. 19-13

DST NO.: 1

#### SAMPLE DATA

#### SAMPLE CHAMBER:

CAPACITY OF SAMPLE CHAMBER... 2500 CC
VOLUME OF SAMPLE..... 2200 CC
PRESSURE IN SAMPLER.... 50 PSIG
WHERE SAMPLER WAS DRAINED.... Rig

SAMPLER CONTAINED: 2200 cc 0il & Gas cut mud

#### RESISTIVITY DATA:

DID WELL FLOW: GAS NO OIL NO WATER NO

#### RECOVERY IN PIPE:

50 ft. of slightly gas cut drilling mud .25 Bbl.
100 ft. of heavily gas cut and slightly oil cut drilling mud .50 Bbl.

150 ft. Total .75 Bbl. Total

**BLOW DESCRIPTION:** First flow; tool opened with 1" blow and increased to 3" in 4 min, 8" in 6 min, bottom of the bucket in 10 min with 6oz on the hose, 7oz on the hose at the end of the flow period.

Second Flow; tool opened with a strong blow and increased to the bottom of the bucket in 30 sec, 15 oz on the hose in 1 min, 14 oz in 5 min, 11 oz in 10 min, 10 oz in 15 min, 8 oz in 20 min, 7 oz in 25 min, 6 oz in 30 min, 5 oz in 40 min, 5 oz in 50 min, 5 oz at the end of the flow period.

COMPANY NAME: Conley P. Smith WELL NAME: Foster Fed 19-13 DST NO.: 1

TYPE DMR NO. 4000 CAP. 5000 LOC. 4906 INSIDE X OUTSIDE

HOURS 03:04:00

TYPE DMR CAP. 5000

NO. 4001 LOC. 4988 OUTSIDE X

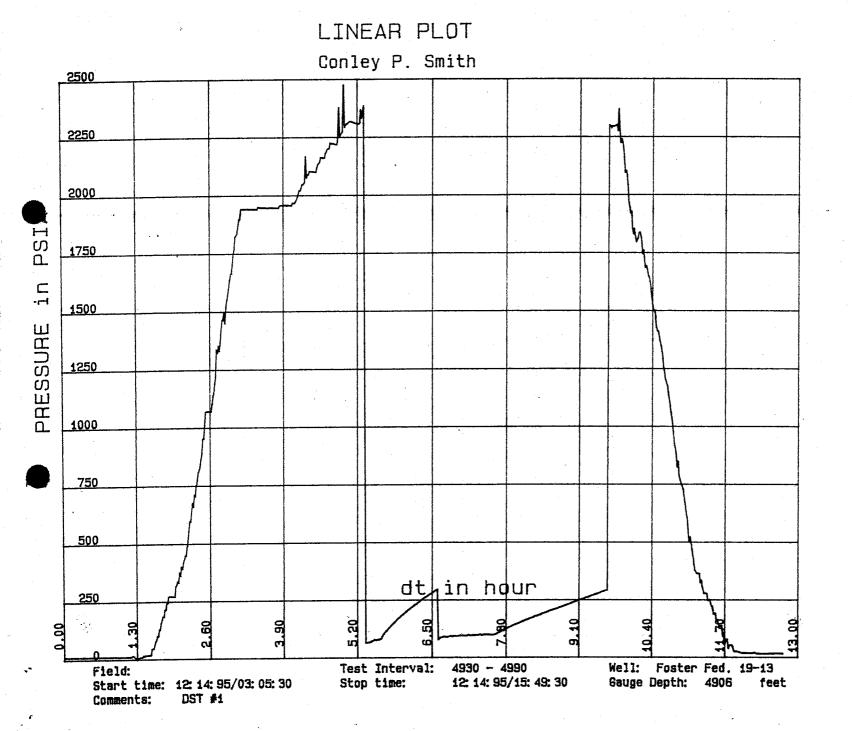
INSIDE

HOURS 03:06:00

	PRESS.		PRESS.
IH	2365	IH	2393
FH	2301	FH	2317
IF-1	62	IF-1	67
FF-1	81	FF-1	90
IF-2	77	IF-2	81
FF-2	103	FF-2	106
SIP-1	296	SIP-1	221
SIP-2	293	SIP-2	292

CHOKE FLOW RATE SURFACE TIME SIZE PRESSURE MCF/D REMARKS

NO GAS TO SURFACE



#### WELL TEST REPORT

COMPANY NAME : Conley P. Smith

FIELD

WELL NAME

: Foster Fed. 19-13

LOCATION

: SW SW 19 30S 24E

PERF. INTERVAL : 4930 - 4990

ELEVATION

GAUGE DEPTH

: 4906

feet

GAUGE MODEL

: 2578

GAUGE S/N

: 4000

TEST TYPE

: Bottom Hole Conventional

COMMENTS

# Initial Flow Data

TECHNICIAN : Lee Whiting

REPORT DATE

1 12/15/95

#### WELL TEST DATA REPORT Page: 1

COMPANY : Conley F. Smith

FIELD

WELL : Foster Fed. 19-13

LOCATION : SW SW 19 305 24E

TEST INT. : 4930 - 4990 GAUGE DEPTH : 4906 feet

GAUGE S/N : 4000 START DATE: 12/14/95 (MM/DD/YY) START TIME: 03:04:00 (HH:MM:SS)

Day	! Time ! ! HH:MM:SS!	Delta : Time : Hours :	Press   dp PSIA	: Temp	Record #   in the   DataFile
	The same state and same state	where which could pupply backer (count produc makes access produc product	term beret auch bride jenes topie blarp miles erzer ciden blare ment byret dann dann und	If every whose of the 1960s dehad proces means games	
1	08:25:30	0.000	62.5 0.0	110.0	281
1.	08:26:30	0.017	63.7 1.3	110.0	282
1	08:27:30	0.033	65.0 2.5	110.0	283
1.	08:28:30	0.050	66.2 3.E		284
1	08:29:30	0.067	68.8 6.3		285
1	08:30:30	0.083	70.0 7.5		286
1	08:31:30	0.100	72.5 10.0	The second secon	287
1	08:33:30	0.133	76.2 13.7	24	288
1	08:34:30	0.150	81.3 18.8		289
1	08:35:30	0.167	76.2 13.7		290
1	08:36:30	0.183	76.2 13.7		271
1	08:37:30	0.200	80.0 17.5		292
1	08:38:30	0.217	81.3 18.8		293
1	08:39:30	0.233	81.3 18.8		273 294

BAKER OIL TOOLS

#### WELL TEST REPORT

COMPANY NAME : Conley P. Smith

FIELD

WELL NAME

: Foster Fed. 19-13

LOCATION : SW SW 19 308 24E

PERF. INTERVAL : 4930 - 4990

ELEVATION

GAUGE DEPTH

: 4906

feet

GAUGE MODEL

: 2578

GAUGE S/N : 4000

TEST TYPE : Bottom Hole Conventional

COMMENTS

: Initial Shut-in Data

TECHNICIAN : Lee Whiting

REPORT DATE

: 12/15/95

#### WELL TEST DATA REPORT Page: 1

COMPANY : Conley P. Smith TEST INT. : 4930 - 4990 FIELD GAUGE DEPTH: 4906 feet

WELL : Foster Fed. 19-13

GAUGE S/N : 4000 START DATE: 12/14/95 (MM/DD/YY) LOCATION : SW SW 19 308 24E START TIME: 03:04:00 (HH:MM:SS)

Day	Time     HH:MM:SS  !	Delta   Time   Hours	Press PS	l dp IA	! Temp ! 'F	Record #   in the
west year tong and print stay place ago						! DataFile
1	08:41:30	0.000	86.2	0.0	110.8	295
1		0.017	93.8	7.5	110.8	296
1	08:43:30	0.033	101.2	15.0	110.8	297
1.	08:44:30	0.050	106.2	20.0	110.8	278
1	08:45:30	0.067	112.5	26.2	110.8	299
1	08:46:30	0.083	116.2	30.0	110.8	300
1	08:47:30	0.100	120.0	33.7	110.8	301
1.	08:49:30	0.133	131.2	45.0	110.9	302
1	08:50:30	0.150	133.7	47.5	110.9	303
1.	08:51:30	0.167	138.7	52.5	110.7	304
1	08:52:30	0.183	142.5	56.3	110.7	305
1	08:53:30	0.200	147.5	61.2	110.9	305 306
1.	08:54:30	0.217	151.2	65.0	110.9	307
1	08:55:30	0.233	155.0	68.8	110.9	308
1	08:57:30	0.267	163.7	77.5	111.1	30 <b>9</b>
1	08:58:30	0.283	168.7	82.5	111.1	310
1	08:59:30	0.300	172.5	86.2	111.1	311
1	09:00:30	0.317	175.0	88.7	111.1	312
1	09:01:30	0.333	178.7	92.5	111.1	313
1	09:02:30	0.350	182.5	96.2	111.1	314
1	09:03:30	0,367	186.2	100.0	111.1	315
1	09:05:30	0.400	193.7	107.5	111.2	316
1	09:06:30	0.417	196.2	110.0	111.2	317
1	09:07:30	0.433	200.0	113.7	111.2	318
1	09:08:30	0.450	202.5	116.2	111.2	319
1	09:09:30	0.467	207.5	121.2	111.2	320 S
1	09:10:30	0.483	210.0	123.7	111.2	321
1	09:11:30	0.500	213.7	127.5	111.2	322
1	09:13:30	0.533	220.0	133.7	111.3	323
1	09:14:30	0.550	222.5	136.2	111.3	324
1	09:15:30	0.567	226.2	140.0	111.3	325
1	09:16:30	0.583	230.0	143.7	111.3	326
1	09:17:30	0.600	232.5	146.2	111.3	327
, 1	09:18:30	0.617	235.0	148.7	111.3	328
1	09:19:30	0.633	238.7	152.5	111.3	329
1	09:21:30	0.667	243.7	157.5	111.4	327 330
1	09:22:30	0.683	247.5	161.2	111.4	331
1	09:23:30	0.700	251.2	165.0	111.4	
i	07:24:30	0.717	253.7	167.5	111.4	332
i	09:25:30	0.733	257.5	171.2	111.4	333 334

Page: 2

Day	Time     HH:MM:SS  	Delta   Time   Hours	Press PS	l dp IA	l Temp l 'F	Record #   in the   DataFile
1	09:26:30	0.750	260.0	4	4 4 4 7	tt Coreta khama pamong penga khatat palana dalahan dalahan ayung pama magga khaga galahan
1	09:27:30	0.767	262.5	173.7 176.2	111.4	335 337
1	09:29:30	0.800	267.5	181.2	111.5	336 337
ī	09:30:30	0.817	271.2	185.0	111.5	338
1	09:31:30	0.833	273.7	187.5	111.5	339
1	09:32:30	0.850	276.2	190.0	111.5	340
1	09:33:30	0.867	278.7	192.5	111.5	341
1	09:34:30	0.883	281.3	195.0	111.5	342
1	09:35:30	0.900	283.7	197.5	111.5	343
1	09:37:30	0.933	290.0	203.7	111.6	344
1	09:38:30	0.950	292.5	206.2	111.6	345
1	09:39:30	0.967	295.0	208.7	111.6	346
1	09:40:30	0.983	296.2	210.0	111.6	347

BAKER DIL TOOLS

#### WELL TEST REPORT

COMPANY NAME : Conley P. Smith

FIELD

WELL NAME

: Foster Fed. 19-13

LOCATION : SW SW 19 305 24E

PERF. INTERVAL : 4930 - 4990

ELEVATION

GAUGE DEPTH

: 4906 feet

GAUGE MODEL

: 2578

GAUGE S/N

: 4000

TEST TYPE : Bottom Hole Conventional

COMMENTS

: Final Flow Data

TECHNICIAN

: Lee Whiting

REPORT DATE : 12/15/95

 $\mathbb{R}^{N_{t}}$ 

#### WELL TEST DATA REPORT

Page: 1

COME AND	pane, np. pane, pane, np.		
COMPANY	: Conley P. Smith	TEST INT. : 4930 -	4990
FIELD	<u>.</u>	GAUGE DEFTH : 4906	feet
WELL	: Foster Fed. 19-13	GAUGE S/N : 4000	
LOCATION	: SW SW 19 30 <b>S</b> 24E	START DATE: 12/14/95	(MM/DD/YY)
		START TIME: 03:04:00	(HH: MM: SS)

Day			Delta   Time   Hours	Press P	dp SIA	Temp   'F	Record 4 in the DataFile
• mit am 2111 mg ta	***************************************	in anne anno seem seem total basic ramp cord color cord color cord color	mines wrote thinks deade were public reads asses asses asses a	mer yaka mesa dapa dala yawa dapa gasa y	neto ettot finas esem esem esem esem esses espes espes	***** ***** ***** ***** ***** ***** ****	
	1	09:41:30	0.000	77.5	0.0	111.6	348
	1	09:42:30	0.017	85.0	7.5	111.6	349
	1	09:43:30	0.033	88.7	11.2	111.6	350
	1	09:45:30	0.067	91.2	13.7	111.5	351
	1	09:46:30	0.083	92.5	15.0	111.5	352
	1	09:47:30	0.100	93.8	16.2	111.5	353
	1	09:48:30	0.117	91.2	13.7	111.5	354
	1	09:49:30	0.133	91.2	13.7	111.5	355
	1	09:50:30	0.150	91.2	13.7	111.5	356
	1	09:51:30	0.167	92.5	15.0	111.5	357
	1	09:53:30	0.200	93.8	16.2	111.6	358
	1	09:54:30	0.217	96.2	18.8	111.6	359
	1	09:55:30	0.233	92.5	15.0	111.6	360
	1.	09:56:30	0.250	93.8	16.2	111.6	361
	1	09:57:30	0.267	96.2	18.8	111.6	362
	1	09:58:30	0.283	93.8	16.2	111.6	363
	1	09:59:30	0.300	95.0	17.5	111.6	364
	1	10:01:30	0.333	93.8	16.2	111.6	365
	1	10:02:30	0.350	96.2	18.8	111.6	366 366
	1	10:03:30	0.367	98.7	21.2	111.6	
	1	10:04:30	0.383	95.0	17.5		367
	1	10:05:30	0.400	97.5		111.6	368
	1	10:06:30	0.417		20.0	111.6	369
	1	10:05:30	0.433	97.5	20.0	111.6	370
	1	10:07:30	P	97.5	20.0	111.6	371
	+		0.467	96.2	18.8	111.7	372
	1	10:10:30	0.483	97.5	20.0	111.7	373
		10:11:30	0.500	97.5	20.0	111.7	374
	1	10:12:30	0.517	101.2	23.7	111.7	375
	1	10:13:30	0.533	97.5	20.0	111.7	376
	1	10:14:30	0.550	96.2		111.7	377
	1	10:15:30	0.567	98.7	21.2	111.7	378
	1	10:17:30	0.600	97.5	20.0	111.7	379
	1	10:18:30	0.617	100.0	22.5	111.7	380
. 4	1	10:19:30	0.633	98.7	21.2	111.7	381
	1	10:20:30	0.650	100.0	22.5	111.7	382
	1	10:21:30	0.667	98.7	21.2	111.7	383
	1	10:22:30	0.683	98.7	21.2	111.7	384
	1	10:23:30	0.700	100.0	22.5	111.7	385
	1	10:25:30	0.733	103.7	26.2	111.8	386
	1	10:26:30	0.750	97.5	20.0	111.8	387

¥.				
WELL NAME	Foster	Fed.	19-13	Page:

Day	:	Time   HH:MM:SS  	Delta   Time   Hours	Fress   PSIA	dp	Temp F	Record # in the DataFile
		Mater above south state tenns privil antical darbit gaging passes gained	t water served <b>(ICAN)</b> Stated above couple arrive Majord proofs major to	then much state foote cores about come annu about about about graps and		ner arrian deelle sireen reken deken koons koons deure en	man vette while puris appar outer doop putter states whose ways a
1		10:27:30	0.767	100.0	22.5	111.8	388
1		10:28:30	0.783	101.2	23.7	111.8	389
1		10:29:30	0.800	102.5	25.0	111.8	390
1 1		10:30:30	0.817	101.2	23.7	111.8	391
. 1		10:31:30	0.833	100.0	22.5	111.8	392
1		10:33:30	0.867	100.0	22.5	111.9	393
1		10:34:30	0.883	102.5	25.0	111.9	394
1		10:35:30	0.900	98.7	21.2	111.9	395
1		10:36:30	0.917	98.7	21.2	111.9	396
1		10:37:30	0.933	101.2	23.7	111.9	397
1		10:38:30	0.950	100.0	22.5	111.9	398
1		10:39:30	0.967	98.7	21.2	111.9	399
1		10:41:30	1.000	103.7	26.2	111.9	400

BAKER OIL TOOLS

#### WELL TEST REPORT

COMPANY NAME : Conley P. Smith

FIELD

WELL NAME

: Foster Fed. 19-13

LOCATION

: SW SW 19 30S 24E

PERF. INTERVAL : 4930 - 4990

ELEVATION

GAUGE DEPTH

: 4906

feet

GAUGE MODEL

: 2578

GAUGE S/N : 4000

TEST TYPE

: Bottom Hole Conventional

COMMENTS

: Final Shut-in Data

TECHNICIAN

: Lee Whiting

REPORT DATE

: 12/15/95

#### WELL TEST DATA REPORT

Fage: 1

COMPANY : Conley P. Smith TEST INT. : 4930 - 4990 GAUGE DEPTH : 4906 feet WELL : Foster Fed. 19-13 GAUGE S/N : 4000

WELL: Foster Fed. 19-13 GAUGE S/N: 400 LOCATION: SW SW 19 30S 24E START DATE: 12/14

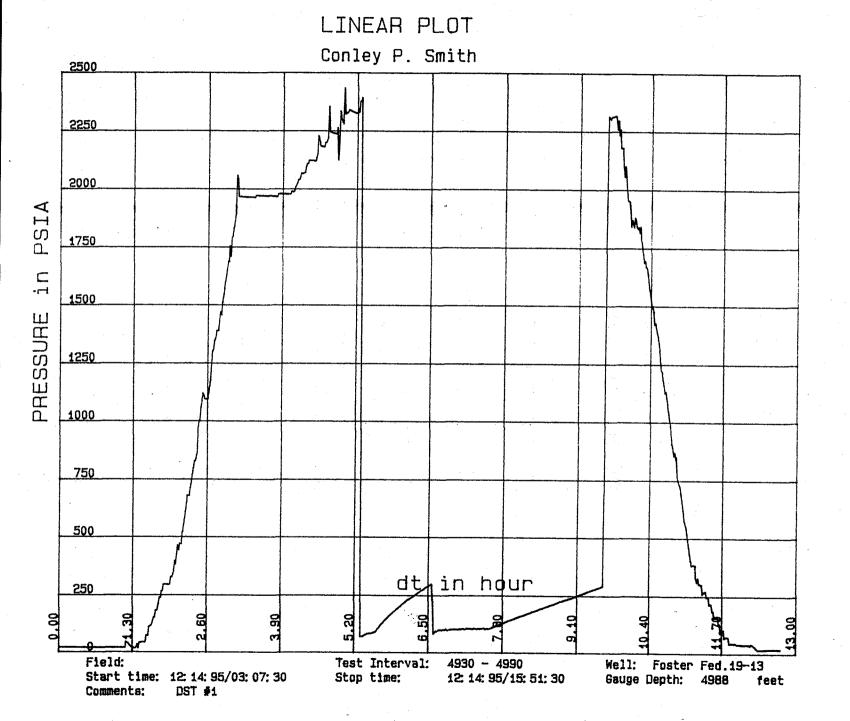
GAUGE S/N : 4000 START DATE: 12/14/95 (MM/DD/YY) START TIME: 03:04:00 (HH:MM:SS)

Day	Time     HH:MM:SS  		Press   PS]		Temp	Record   in the   DataFil	<b>.</b>
***************************************		e enter anno anno anno anno danny anno anno anno anno anno anno			, abiec terms galant them pages mass place acces	. Straw nature facult former straw plants plants spoots and	
	1 10:42:30	0.000	105.0	0.0	111.9	401	
	1 10:43:30	0.017	107.5	2.5	111.7	402	
	1 10:44:30	0.033	110.0	5.0	111.9	403	
	1 10:45:30	0.050	111.2	6.3	111.9	404	
	1 10:46:30	0.067	113.7	8.8	111.9	405	
	1 10:47:30	0.083	115.0	10.0	111.9	406	
	1 10:49:30	0.117	120.0	15.0	112.0	407	
	1 10:50:30	0.133	121.2	16.2	112.0	408	
	1 10:51:30	0.150	123.7	18.8	112.0	409	,
	1 10:52:30	0.167	126.2	21.2	112.0	410	
;	1 10:53:30	0.183	127.5	22.5	112.0	411	
:	1 10:54:30	0.200	130.0	25.0	112.0	412	
	1 10:55:30	0.217	132.5	27.5	112.0	413	
:	1 10:57:30	0.250	135.0	30.0	112.1	414	
	1 10:58:30	0.267	137.5	32.5	112.1	415	
:	1 10:59:30	0.283	140.0	35.0	112.1	416	
;	1 11:00:30	0.300	141.2	36.2	112.1	417	
:	1 11:01:30	0.317	142.5	37.5	112.1	418	
	1 11:02:30	0.333	145.0	40.0	112.1	419	
	11:03:30	0.350	146.2	41.2	112.1	420	
	1 11:05:30	0.383	148.7	43.8	112.1	421	
	1 11:06:30	0.400	151.2	46.2	112.1	422	,
•	1 11:07:30	0.417	152.5	47.5	112.1	423	
	1 11:08:30	o.433	155.0	50.0	112.1	424	
	1 11:09:30	0.450	156.3	51.2	112.1	425	
	1 11:10:30	0.467	158.7	53.7	112.1	426	
	1 11:11:30	0.483	158.7	53.7	112.1	427	
	1 11:13:30	0.517	163.7	58.7	112.1		
	1 11:14:30	0.533	165.0	60.0	112.2	428	
	1 11:15:30	0.550				429	
	1 11:16:30	0.557	166.2	61.2	112.2	430	
			167.5	62.5	112,2	431	
		0.583	168.7	63.7	112.2	432	
	1 11:18:30	0.600	171.2	66.2	112.2	433	
	1 11:19:30	0.617	172.5	67.5	112.2	434	
	1 11:21:30	0.650	175.0	70.0	112.2	435	
	1 11:22:30	0.667	177.5	72.5	112.2	436	
	1 11:23:30	0.683	178.7	73.7	112.2	437	
	1 11:24:30	0.700	181.2	76.2	112.2	438	
	1 11:25:30	0.717	181.2	76.2	112.2	439	
	1 11:26:30	0.733	182.5	77.5	112.2	440	

Day		Delta ! Time !		dp BIA	Temp	Record #   in the
er salver veloker bester salver salver appear 17770 o		Hours !	itata matap dagan dagan gagan pagan pagan p	enne nerver omer «feir blane abbes abers pylos ac	1	: DataFile
1	11:27:30	0.750	105.0	90.0	117 7	, D. O. d.
1	11:27:30	0.783	185.0 187.5	80.0	112.2	441
1	11:30:30	0.800	190.0	82.5	112.3	442
1	11:31:30	0.817	191.2	85.0	112.3	443
1	11:32:30	0.833	192.5	86.2 87.5	112.3	444
1	11:33:30	0.850	193.7	88.7	112.3 112.3	445
1	11:34:30	0.867	176.2	91.2	112.3	446
1	11:35:30	0.883	196.2	91.2	112.3	447 448
ī	11:37:30	0.917	200.0	95.0	112.3	449
1	11:38:30	0.933	201.2	96.2	112.4	449 450
1	11:39:30	0.950	203.7	98.7	112.4	451
<u>.</u>	11:40:30	0.967	205.0	100.0	112.4	452
1	11:41:30	0.983	206.2	101.2	112.4	453
1	11:42:30	1.000	207.5	102.5	112.4	454
1	11:43:30	1.017	208.7	103.7	112.4	455
1	11:45:30	1.050	211.2	106.2	112.4	456
1	11:46:30	1.067	212.5	107.5	112.4	457
1	11:47:30	1.083	213.7	108.7	112.4	458
1	11:48:30	1.100	215.0	110.0	112.4	459
1	11:49:30	1.117	217.5	112.5	112.4	
ī	11:50:30	1.133	218.8	113.7	112.4	460
1	11:51:30	1.150	220.0	115.0	112.4	461
. ī	11:53:30	1.183	222.5	117.5	112.5	462
- <b>1</b>	11:54:30	1.200	223.7	118.7	112.5	463
ī	11:55:30	1.217	226.2	121.2	112.5	464
1	11:56:30	1.233	227.5	122.5	112.5	465
i	11:57:30	1.250	228.7	123.7		466
1	11:58:30	1.267	231.2		112.5	467
1	11:59:30	1.283		126.2	112.5	468
1	12:01:30		231.2	126.2	112.5	469
1	12:02:30	1.333		130.0	112.6	470
	12:02:30		237.5	132.5	112.6	471
1	12:04:30	1.350 1.367	237.5	132.5	112.6	472
1	12:05:30	1.383	240.0 241.2	135.0	112.6	473
i	12:06:30	1.400	242.5	136.2	112.6	474
1	12:07:30	1.417		137.5	112.6	475
i	12:07:30	1.450	243.7 246.2	138.7 141.2	112.6	476
1	12:10:30	1.467	248.7		112.6	477
1	12:11:30	1.483	250.0	143.7	112.6	478
1	12:12:30	1.500	250.0 251.2	145.0	112.6	479
1	12:13:30	1.517		146.2	112.6	480
1			252.5	147.5	112.6	481
	12:14:30	1.533	255.0	150.0	112.6	482
1	12:15:30	1.550	255.0	150.0	112.6	483
1	12:17:30	1.583	258.7	153.7	112.6	484
1	12:18:30	1.600	261.2	156.3	112.6	485

D	ay	: Time : : HH:MM:SS:	Delta : Time : Hours :	Press Ps	•	l Temp	Record #   in the   DataFile
		a pros					
*	1	12:19:30	1.617	261.2	156.3	112.6	486 👯
	1	12:20:30	1.633	262.5	157.5	112.6	487
	1	12:21:30	1.650	263.7	158.7	112.6	488
	1	12:22:30	1.667	266.2	161.2	112.6	489
	1	12:23:30	1.683	267.5	162.5	112.6	490
	1	12:25:30	1.717	271.2	166.2	112.7	491
	1	12:26:30	1.733	271.2	166.2	112.7	492
	1	12:27:30	1.750	273.7	168.7	112.7	493
	1	12:28:30	1.767	275.0	170.0	112.7	494
	1	12:29:30	1.783	276.2	171.2	112.7	495
	1	12:30:30	1.800	278.7	173.7	112.7	496
	1	12:31:30	1.817	278.7	173.7	112.7	497
	1	12:33:30	1.850	282.5	177.5	112.7	498
	1	12:34:30	1.867	283.7	178.7	112.7	499
	1	12:35:30	1.883	286.2	181.2	112.7	500
	1	12:36:30	1.,900	287.5	182.5	112.7	501
	1	12:37:30	1.917	287.5	182.5	112.7	502
	1	12:38:30	1.933	290.0	185.0	112.7	503
	1.	12:39:30	1.950	291.2	186.2	112.7	504
	1	12:41:30	1.983	293.7	188.7	112.7	505
					4 mm m = /	and the street of	and had and

BAKER OIL TOOLS



Note:

The reports and plots contained here—in are a true and accurate representation of the input data. However, all interpretations are opinions based on analytical techniques described in the literature and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willfull negligence on our part, be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretations made by one of our officers, agents, or employees.

BAKER DIL TOOLS

Form 3160-5 (June 1990)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993
ase Designation and Serial No.

	BUKEAU OF LAND	DIV OF OIL, GAS & MIN	NG UTU-71433
		REPORTS ON WELLS	6. If Indian, Allottee or Tribe Name
Do not use this form for Use "Al	PPLICATION FOR PER	o deepen or reentry to a different reservoir. MIT—" for such proposals	
	SUBMIT IN T	RIPLICATE	7. If Unit or CA, Agreement Designation
I. Type of Well			
Oil Gas Well O	her DRY HOLE		8. Well Name and No.
2. Name of Operator			Foster Federal #19-13
CONLEY P. SMITH O  3. Address and Telephone No.	PERATING COMPANY		
· · · · · · · · · · · · · · · · · · ·	#2260 Danwar C	olorado 80202	43-037-31767  10. Field and Pool, or Exploratory Area
1125 17th Street 4. Location of Well (Footage, Sec., 1	r., R., M., or Survey Description		Lisbon
			11. County or Parish, State
675' FSL & 670' F	WL (SWSW) Section	n 19, T30S-R24E	San Juan County, Utah
2. CHECK APPRO	OPRIATE BOX(s) TO	INDICATE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMI	SSION	TYPE OF ACTION	
X Notice of Intent		X Abandonment	Change of Plans
		Recompletion	New Construction
Subsequent Repor	t ,	Plugging Back	Non-Routine Fracturing
		Casing Repair	Water Shut-Off
Final Abandonme	nt Notice	Altering Casing	Conversion to Injection
And the control of th		Other State	Dispose Water     (Note: Report results of multiple completion on Well     Completion or Recompletion Report and Log form.)
		nt details, and give pertinent dates, including estimated date of starting s for all markers and zones pertinent to this work.)*	g any proposed work. If well is directionally drilled,
give subsurface locations and	measured and true vertical depart	s for all markets and zones peranon to and workly	
;			•
	A well was obta	ined from Mr. Gary Torres w/BLM a	t 10:00 a.m. 12-15-95
as follows:			
D1 #	Crea of Comont	Donth	
Plug #	Sxs of Cement	<u>Depth</u>	
1	155	5034-4637	
2	94	3305-3011' (Wait 2-4 hrs. & te	st plug)
3	40	1560-14601	
4	10	50-Surface	
•			
14. I hereby certify that the foregoing	is true and correct	Robert P. Vernon	
Signey	m	Tide Operations Manager	Date 12-21-95
(This space for Federal or State of	office use)		
Approved by		Title	Date

Form 3160-5 (June 1990)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT OF OIL, GAS & MINING

D E G E 1 995 R 2 6 1995

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

#### UTU-71433

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT—" for such proposals

use "APPLICATION FOR PERMIT —" for such proposals	: '
SUBMIT IN TRIPLICATE	7. If Unit or CA, Agreement Designation
1. Type of Well Oil Gas Well Well X Other DRY HOLE	8. Well Name and No.
2. Name of Operator CONLEY P. SMITH OPERATING COMPANY	Foster Federal #19-13 9. API Well No.
3. Address and Telephone No. 1125 17th Street #2360, Denver, Colorado 80202	43-037-31767 10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	Lisbon 11. County or Parish, State
675' FSL & 670' FWL (SWSW) Section 19, T30S-R24E	San Juan County, Utah

12.	CHECK APPROPRIATE BOX(	s) TO INDICATE NATURE OF NOTICE, REPO	ORT, OR OTHER DATA
	TYPE OF SUBMISSION	TYPE OF ACTION	٧
	Notice of Intent	X Abandonment	Change of Plans
	(E)	Recompletion	New Construction
	X Subsequent Report	Plugging Back	Non-Routine Fracturing
	· ·	Casing Repair	Water Shut-Off
	Final Abandonment Notice	Altering Casing	Conversion to Injection
	and the second of the second o	Other	Dispose Water
	en e	agraphic file of the same	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

P & A well on 12-16-95 as follows:

Plug #	Sxs of Cement	<u>Depth</u>
1	155	5034-4637'
2	94	3305-3011' (Tested plug after 2 hrs. & after 4 hrs. OK)
3	40	1560-1460 <b>'</b>
4	10	50-Surface

P & A operations witnessed by Mr. Jeff Brown w/BLM. Fenced 4th side of reserve pit. Filled rat & mouse holes. Installed Dry Hole Marker. Will wait 30-90 days for reserve pit to dry and then fill, level location, & reseed.

Attached is copy of Schlumberger Dowell Cement Ticket showing where cement plugs were set.

	taga da karangan da karang Banggan da karangan da kar	<u> </u>
4. I hereby certify that the foregoing is true and correct Signed	Robert P. Vernon	Date 12-20-95
(This space for Federal or State office use)		
Approved by	Title	Date

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DOMETT			_		1-50	5-32	7-0317		_	DE	EC <u>19</u> '95	1	16	:36 N	00.0	3 P.O	12
DS-498-A PRIN	ITED IN U.S.A	<b>.</b>		"4			Dowe MBERGE	-	CORPOR	ATED	STAGE	108	<u> </u>	- 6132 DISTRIC	et e	12 m	5 45
WELL NAME AND	NO.		Irc	CATION	(LEGAL)			190	NAME:	E	er Corne		4,	<b>&gt;</b>			
Fosta FIELD-POOL	c Fal	19-1	3	see.	19 T30	5. A	ZYE	Wie	LL DATA;		T. CALMA	BOTTO	M			TOP	
FIELD-POOL			F	HILATR	N				SIZE /	W	CSG/Liner Size	83	1				}.
					•			101	TAL DEPTH	5734	WEIGHT	24	7				
COUNTY/PARISH			_	ATE		AF	i. No.		NOI D CAB	_	FOOTAGE	15%	0	1			1
SAU	JURA	<i>)</i>		47%	A			MU	O TYPE		GRADE			1			1
	0					4 .		Įġ.	BHST		THREAD	8R	,				1
NAME	ONEL	y 2	Smi	H				<u> </u>	D DENSITY		LESS FOOTAGE SHOE JOINT(9)	0.55		. 8			TOTAL
								1	D VISC.		Disp. Capacity		1	1. 638: 51.5			
AND		<del></del>	<u> </u>		•	<del></del>		1001	TE: Include For	tage I ro	rn Ground Level To Hee	d In Disp.	Caspi	acity			
ADDRESS								Ţ	TYPE	T			7	TYPE			
					ZIP CODE			8	DEPTH	$\top$			3	DEPTH			
SPECIAL INSTRU	CTIONS .	<u> </u>				# 4		#	TYPE				1 8	TYPE		F	
- 7	# 1 A	er e	PIUS	<u> </u>	As pe	- CUS	TAPRO	캶	DEPH	7			18	DEPTR			<del>i-1</del>
And	SLM_	<del></del>			<del> </del>				ed & Pluge	IO TE	e ADJ	ρ. j.		£	OUEEZE .	ЮВ	
			<u> </u>	<del></del>		· · · · · · · · · · · · · · · · · · ·		ш	Double /	SIZE	41/2	- 8	TYE	Æ			
								17:	Single /	υм	EIGHT 166	٦ĕ٢	DE	PTH			
<del></del>			• • • • • • • • • • • • • • • • • • •					מו	Sample	D GF		TAIL	PIP	e: 81 <b>2</b> 6	- 4	DEPTH	
IS CASING/TUBIN	O SECURED	7 LI YE	8 LINC	)				n	Knegkali	ПТН	READ HH	TUB	ING	VOLUME			Bbls
LIFT PRESSURE			PSI	C	ASING WEIGH	T + SURF	ACE AREA	то	P/TR JW	ΠNE	W K USED	CAS	ING	VOL. BELO	W TOOL		Bbis
PRESSURE LIMIT	T	.5780	PSI	BUMP E	PLUG TO	13 (7.33) Pen	PSI	89	WI AU	DEPT	H 5034	TOT	AL.				Bbla
ROTATE	<u> </u>	RPM REC		•	FT No. c	Centrelize	1(8	1				עעג	UAL	VOLUME			. Bble
TIME	PRES	SURE	VOLU: PUMPE	VIE ) eel	JOB SCHEE				NARIVE ON TIME: //		ION DATE: /2 -/5-	n Ti	EFI ME:	87%	<u></u>	TE/J-	1
0001 to 2400	TBG OR D.P.	· CASING	INCHEMENT	CUM	INJECT PATE	FWIE	FLUID	,			SEA	VICE LO	G D	ETAIL			
	1.55 (1.27 )		374	- , >	3	1		PRE.	JOB SAFET	Y MEE	TING Ves	·		· .			-
10.0					73	110		_			11 1	<del></del>		· · · · · · · · · · · · · · · · · · ·			

TIME	PRES	SURE	VOLUI PUMPEC	ME D 68L	JOB SCHED			ARRIVE ON LOCATION LEFT LOCATION  GETIME: 1745 DATE: 12-15 TIME: 015 DATE: 12-15
0001 to 2400	OR D.P.	CASING	INCREMENT	CUM	INJECT RATE	FLUID TYPE	FLUID	SERVICE LOG DETAIL
			3.55					PREJOB SAFETY MEETING 1/6.5
1909	320	,	10	1	5.3	130	8.34	STACT HOO Ahend
1911	330		29	10	5.4			STAIT CEMPATSLUCIA
1918	100		4.	39	414	11:0	834	STAIT HOD Displacement
1918-	100		618			mus	122 1 32	STACT MILL Displacement
1928	0			142				Shidown plus Balanand Q 4637 WATON Rio
2044	80		10	•••	5.3	H20	8.34	STACE Had Ahead
2046	220		11%	10	5.3	Cat	15.8	STAIT CAMPA Slurry
2049	130		-	214		Hab	8.24	STAIT HEO DISPLACE
2049	190		40	03/		mud		STAIR mud Displace
2056	0			63/2	0		-	Shitdown plus salassed & Sloo' WAITORRISTIAN
•								AND THE PINE
0/15								STILL COURT ROOMY TAL. BIM DOUNTED TO
							77.1	set 95 19, plus @ 3086 To3011
0231	240		16	_	5.3	1/20	8.34	STACE Had Ahead
0 233	150		10	10	5,3	ent	1578	STAIT CEMENT Slurry
0235	160		12	16	43	1120	8.34	STACK HOU DISPLACE
REMARKS			·					

SYSTEM	NO OF	YIELO	COMPOSITION OF CEMENTING SYSTEMS	ŞLURRY I	
CODE	BACKS	CU. FT/8K		BBLS	DENSITY
Plus 1	LEP	1.15	Cl. G. 15% B14 4637-5034	20	15.8
plug 2.	04	1,15	Cl. 6. 37. 5-1 3211-3305	1.3	15.8
14	110	1.15	Cha. 1.5 % 5-1 1460-1500	9	15
	30	1.15	C1. A 32 5-1 Surface -50	2	150
phus 3	30		U1-1-13% 5-1 3011-3086	6	150
6.					

BREAKDOWN FLUID	TYPE			VOLUME	DENSITY	PRESSURE	MAX.	MIN:	
D HESITATION SQ.			ENUNNING 8Q.	CIRCULATION LOST	LI AES LI NO	Camont Circulated	i To Surf. 🔲 YÉS	I) NO	Bbls.
BREAKDOWN	PSI	FINAL	P8I	DISPLACEMENT VOL.	Bbis	LAC IIUIL	[] STORAGE	() BRINE WATER	
Washed Thru Perfs	O NES	O NO	TO FT,	MEASURED DISPLACEMENT IT	() WIRELINE	WELL IT GAS	T) INJECTION	T WILDCAT	<u> </u>
PERFORATIONS		4 - 44 4 T		CUSTOMER REPRESENTATIVE	, , , , , , , , , , , , , , , , , , ,	DS SUP	RVISOR	$\mathcal{O}$	
10			TO TO	Bob moore		77	Wavo		
		production of the same	-	7.700					

16:37 No.003 P.03

	4/32	1.
BTAGE	08 DISTRICT	

09-496-A PRIN		<u>.                                    </u>				. JUNILU	MACHUE		ICURPUN	7169	1	<u>L</u>		TALM	Try To	w —	
WELL NAME AND	- 1			CATION		•		RK	3 NAME:	346	CONNERS	*	7				
Foster	Fed	19-	13	520	19 73	105 K	24E	WE	LL DATA:	0		вот	MO			TOP	
FIELD POOL			F	ORMATIC	H			Bil	r size	'	CSG/Liner Size				<u> </u>		
					······································			TO	TAL DEPTH		WEIGHT	<u> </u>					'
COUNTY/PARISH	. ~			TATE		A P	. NO.	n	ROT [] CAB	LE .	FOOTAGE	<u> </u>					4
SAN	Lun	N		UTA	h				UD TYPE		GRADE	<u> </u>			ļ		_
	A1	-		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ė		7.00 7.11	8	SHST BHCT		THREAD					<u> </u>	_]
NAME	LONY	ey r	ر حب و م	mill	2			ML	JD DENSITY		LEGS POOTAGE SHOE JOINT(S)		2	0			TOTAL
AND								ML	JD YISC.		Diso, Capacity	1			<u> </u>	<u> </u>	
								HO	TE: include Foo	tago Fron	Groupe Level To He	ad In Di	yp Ca				
ADDRESS								불	TYPE				, ا	TYPE	4	SH	2
		•			ZIP COOE	<del></del>	·	<u> </u>	DCr 11		- A	L	45	<b>GEPTH</b>			
SPECIAL INSTRU	CTIONS	•						38	TYPE		1/1	-	-18	TYPE		<u> </u>	
								<b>-1}</b> ===		1	/ /			DEPTH			
			<del></del>		· . · · · · · · · · · · · · · · · · · ·	·			oad & Pluga Oouble	O TBO	3/ 170		1 7~	PE	SQUEEZE	JOB	
								_	Single	O WE	IOHT	ğ		PTH	<del></del>		
					·		······································		Swage	□ GR				PE: SIZE		DEPTH	
IS CASING/TUBIN	0.050/050	VE					╝	Knockoff	LI TH				VOLUME	<del> </del>		Bbls	
UFT PRESSURE	G BECONED	17 / YES	P81		ISING WEIGH (3.1	T + SURF	CE AREA	-11	OP COR COW	₩	W (I USEO	- 1 5-		VOL. BEL	OW TOOL		Bbls
PRESSURE LIMIT			PSI	BUMP P		4 × R*)	PS	-11-	אס מס זכ	DEPT		<del>`</del>	TAL				Bbls
AOTATE	<del></del>	RPM RECIP		QUMP P		f Centralize		-		-				L VOLUME		·	Bola
noine	·	TO ME PRODUCT	NOOA!C		JOB SCHED			11	ARRIVE ON	OCATIO	าท		-	LOCATION			
TIME	PRES	SURE .	YOLU PUMPE	ME D pp.	TIME: MS	DAT	E: /2-15	-	TIME: 174	٠	DATE: /2-/					ATE: 1-2	-16
0001 to 2400	TAG OR D.P.	CASING	INCREMENT	CUM	INJECT PATE	ruji TVPE	FLUID DENSITY	<u> </u>		<del></del>				DETAIL!			
0001 10 2400	On U.F.		INCOLUMENT	COM	MAIE	IVE	DCNOFF	PRE	JOB SAFET	Y MEET			-				<del></del>
A > > 1	210		39	10	<u>(7)</u>	mud		_							·		
0236	210	-	37	1	5.3			3	14/1 m	ua_	Displace	7	<u> </u>			4. 1	
0243	U			57	0	<u> </u>		13	MADOW	2 4	entan e	19	10	LAY	DOWN	DIP	
8445	110		10	<b> </b>	\$33	HOD	8.34				Ahond						
0447	200		8	10	5.3	Cart	15.8	2	TAIT	Car	nest 51	al;	_				
0448	160		3	18	5.3	11.0	8.34	IJ			Displan					· .	<u> </u>
0449	80		164	24	5.3	med		ی	4		d pisale						
0 452	110			36%				. CA			The Spate		10	160° =	1460	1	
									ait ow	Pic	To Try Du	10	14	r To S	urta		
0622	80		31/2	_	2,5	Han	8.24	C	There	1.0	Ahrad	<u> </u>	F-/				
	80		6.5	3,5	2.6	out	1 / -	2	TACT C	1 4 4	n n zak		•				
0623							1/0						A.		4		<i>N</i> = -
0636	80		5	10	3.6	H-20	8.74		. 1	Æ	Flush			Med.	10	541	
0626	<del>                                     </del>			105	- 0	<b> </b>	ļ	-	Sheta	114	(e)			· · · · · · · · · · · · · · · · · · ·			
	<b> </b>			-		<del>                                     </del>	ļ									·	
	-					<u> </u>		<u> </u>		<del></del>							
						<b> </b>		_			· · · · · · · · · · · · · · · · · · ·						
	<u> </u>			<u> </u>		1		<u>L</u>									
REMARKS																	
SYSTEM CODE	NO. OF SACKS	YIELD CU. FT/SI	7			O	OMPOSITIO	N OF	CEMENTING	SYSTE	MS					SLURAY MI BL8	XED 1 DENSITY
1.	BACKS	CO. F1721	<del>`</del>						<del></del>			-	<del></del>			BLO	VE(10)-1
2.	1	<del></del>							66	3					1		1
3,	<del>-</del>		17				4 0		H	<u>-</u>	NP			······			<del> </del>
4.	<b></b>	<del>                                     </del>	+	. 7	ee	P	116	0		-					1		<u> </u>
6.	1	t	-			1	<u></u>		<del></del>				•	<del></del>	1		<del>                                     </del>
6,	1	1			•										1		1
BREAKDOWN FL	UID TYPE				VOLUME				D	ENSITY	PRESSURE			MAX.	<del>,,,</del>	MIN:	
D HESITATION S	3Q.		O RUNN	ING SQ.	CIRCULATIO	N LOST			ЦI	rE8 U	NO Coment Circ	botalu	To Si	uri. 🗆 YE	S D NO		Bbla
BREAKDOWN	PBI	FINAL		PŞI	DISPLACEM	ENT VOL.		· · · · · · · · · · · · · · · · · · ·			BDIS TYPE	DtL.		STORAGE	пя	BRINE WATE	ER
Washed Thru Pe	rts LI YES	LI NO 10	<u> </u>	FT.	MEASURED	DISPLACE	MENT ID		L	WIREL		SAS		INJECTION	ă	NILDCAT	
PERFORATIONS				<del></del>	CUSTOMER	REPRESE	NAUVE				DS /	PER	VISO	n			
TO 10		TO TO			80	4 -	moor	Ö,			رم کرس	46		Wo	L	رسسن	• .
10		10			1		,				1710		_	W E			

Form 3160-4 (November 1983) (formerly 9-330)

# UNITED STATES

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

		⊸.	• •	•	_	$\sim$		٠.		i	- g		4
D	EPARTI	ME	N	Т	O	= .	TH	IE	IN	TE	RIC	)R	
	RURE	: Δ11	O	<b>=</b> 1	ΔN	DA	AAL	JΛi	SEME	HE		CONTRACTOR DESCRIPTION OF THE PERSONS	-

	DE	PARTI	MEINI C	<b>ルーロ</b>	FIIA	FRIO	₹	struction reverse s	d on 5. 1.1	ASE DESIG	NATION AND BERL	AL, NO
		BURE	AU OF LA	ND MAN	AGEM	DIV OF O	LG	AC 0. 3410			TU-71433	
WELL CO	OMPLE	TION (	OR RECO	MPI FT	ION	REPORT	ĀN		10 0. IF	INDIAN, A	LLOTTER OR TRIBE	HAME
In. TYPE OF WE		011.	GAR WELL			······································		D LOG		·		1
b. TYPE OF CO	MPLETION	WELL	WELL!	ه ل	RY X	Other			7. ¢i	IIT AUREER	MENT NAME	
WEW.	wonk f	DEEP-	D Pirg	PIF	<u>.                                     </u>	0.1			8 8			!
2. NAME OF OFER	OVER L	<u> </u>	אארונ ניי	L.J 888	vu. L	Other			=-  `` '`	RM OR LE		.
CONLEY P	CMTTI	t ODEDV	TINC COM	DANV					- <del></del>	Foste	er Federal	
3. ADDRESS OF OP	ERATOR	d OI Lite	IIING CON	E SYTA T	·	<del>-                                    </del>		·	<u>-</u>   °· "			
1125 17t	h Stree	et #236	0, Denve	r. CO	8020	2			10.		POOL OR WILDCAT	
4. LOCATION OF W	ELL (Repo	rt location	clearly and in	accordance	with an	y State requi	remen	(e) *				
At surface 675 FSL	£ 670	TELET	Grien)						11. 1	JEC., T., R.,	Lisbon M., or block and a	BURYRI
At top prod. It				•					'	OR AREA	* *	1
Same								•	·		ction 19	i
At total depth Same					RMIT NO.						DS-R24E	
			•					INSUED .	'] _r	OUNTY OR	13. STATE	į.
5, DATE SPUDDED	16. DAT	E T.D. REA	THED   17, DAT		-037-3			l-16-95		in Juar	n Uta	
12-5-95	1	-15-95	Į .	P & A	-		. ELE	VATIONE (DF. R 5817		EXC.).	5818	HAD
O. TOTAL DEPTIL, MD			BACK T.D., MD A		. IF MUI	TIPLE COMPL.	<del></del>	23. INTERVA		NT TOOLS		ol.
5030¹		•			110W M	ANT*		DRILLED	n T	5030'		;
4. PRODUCING INTI	ERVAL(8),	or Tills co	MPLETION— TO	P. BOTTOM,	NAME (	MD AND TVD)					25. WAN DIRECTI	
											SURVET MAD	" <b>*</b> i
Well P &											No	j
6. TYPE ELECTRIC	AND OTHE	R LOGS RUI	12-20-	75						27	. WAS WELL CORE	iD ,
Dual Indi	uction,	GR and	Compens	ated Ne	eutro	n-GR/Liti	10 I	Density-C	aliper	1.	No	ì
9.						ort all strings	act l					
CASINO SIZE	WEIG	NT, LB./FT.		<del></del>	I	LE SIZE	<b> </b>		ring RECORD		AMOUNT PU	LLRD
8 5/8"		24	1510	<u> </u>	12	1/4"	<u> </u>	emented t	o surfa	ıce	None	:
	<u> </u>				ļ			(765 sxs)	-			
	_						<u> </u>	·	•			
9.	!	1.11	NER RECORD	····	<u> </u>	<del></del>	<u>L.</u>	30.	Truin.	G RECOR	<u> </u>	
BIZE	TOP (M		OTTOM (MD)	SACKS CE	MENT!	SCREEN (M		SIZE	<del></del>			<u>-</u>
				- SACIO CA		OCKORN (M		7126		BET (MD)	PACKER BAT	(AD)
	<del></del>			-	· · · · · ·				-	<del></del>		
1. PERFORATION RE	corp (Int	erval, eize	and number)	· <u>·</u>		82.	AC	ID. SHOT, FR	ACTURE C	EMENT S	QUEEZE, ETC.	<del></del>
						DEPTH INT					OF MATERIAL USED	
		N/A							•			
		M/ M	•									
									,			`
-						1						
3.º ATB FIRST PRODUCT	FION	I propret	IOV METHOD (	Figure		DUCTION						
		- RODUCA	ION METHOD (	i towing, ye	t., p	umping	una i	ype oj pumpj		well, st.		r.
P & A wel	HOURS	TESTED	CHOKE BIZE	PROD'N	ron.	OIL-BBL.		GAS-MCF.		tn—Bol.	P&A	<u> </u>
				TEST				480—MCF.	"^"	III—BUL.	CAS-OIL RATIO	4
LOW. TUBING PRESS.	CABING	PRESSURE	CALCULATED	0111		GA8	MCF	30' 4	 TERNBL.	1 5	1	== -
			24-HOUR RAT					"^		"	IL GRAVITI-API (CO	,
. DISPOSITION OF	DAS (Sold,	used for fu	el, vented, etc.	<del>,                                    </del>					TEAT	WITNESSE	D BY	
												1
. LIST OF ATTACH	MENTS				·	<del></del>			<u> </u>			
Open Hole	Loss.	DST #	1, and Ge	eologic	al Re	port mai	.1ed	l under s	eparate	cover	. ·	
3. I hereby certify	that the	toyegoing	and altached li	nformation	is comp	lete and corre	ct as	determined f	rom all ava	llable reco	rds	<del></del>
X	1. 1	4/	hen -			العدستين					10 01 05	
SIGNED	ires	116	-	~ TI7	PT.10	Operation	ns	manager		DATES.	12-21-95	



## ROCKY MOUNTAIN GEO-ENGINEERING CORP.

Well Logging . Consulting Geology . Coal Bed Methane Services . Computerized Logging Equipment & Software

2450 INDUSTRIAL BLVD. • GRAND JUNCTION, CO 81505 (970) 243-3044 • FAX: 241-1085

December 20, 1995

Attn.: Conley P. Smith Conley P. Smith Operating Co. 1125 17th Street, Ste. 2360 Denver, CO 80202

Re:

Foster Federal #19-13

Sec. 19, T30S, R24E

San Juan County, Utah

Dear Mr. Smith:

DEC 2 6 1995

DIV OF OIL, GAS & MINING

43-037-31767 675 F5L 670 FWZ SWSW PA12-16-95

Enclosed are the final logs/geology report/data disk for the above referenced well.

We appreciate the opportunity to be of service and look forward to working with again in the near future.

If you have further questions, please contact us.

Respectfully,

Bill Nagel

Senior Geologist

BN/dn

Enc. 5 Computer Colored Logs/3 Geology Reports/1 Data Disk

cc 1 Computer Colored Log/Geology Report; Dominion Reserves, Inc.; J. Chadwick; Richmond, VA

1 Computer Colored Log/Geology Report; Markwest Coatseams, LLC; R. Garvin; Englewood, CO

1 Computer Colored Log/Geology Report; Ener-Tech Apollo, LLC; G. Willis; Denver, CO

1 Computer Colored Log/Geology Report; Jim's Water service, Inc.; J. Rodgers; Gillette, WY

- 1 Computer Colored Log/Geology Report; Sun Cementing of WY., Inc.; E. Stuber; Gillette, WY
- 1 Computer Colored Log/Geology Report; a. G. Andrikopoulos Resources; A. G. Andrikopoulos; Cheyenne, WY
- 1 Computer Colored Log/Geology Report; England Production Co.; R. Hornig; Denver, CO
- 1 Computer Colored Log/Geology Report; Voyager Exploration, Inc.; N. Foster; Denver, CO
- 1 Geology Report; Division of Oil, Gas & Mining; Salt Lake City, UT
- 1 Geology Report; Moab Utah BLM; Moab, UT

CONLY P. SMITH OPERATING CO. FOSTER FEDERAL #19-13 SW SW SECTION 19, T30S - R24E SAN JUAN COUNTY, UTAH

GEOLOGY REPORT
by
DAVE MEADE
ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044

## TABLE OF CONTENTS

WELL SUMMARY	3
WELL CHRONOLOGY	4
BIT RECORD	5
MUD RECORDS	6
SAMPLE DESCRIPTIONS	7
FORMATION TOPS	28
LINEAR PLOT	29
ZONES OF INTEREST	30
GEOLOGIC SUMMARY AND ZONES OF INTEREST	31

## **WELL SUMMARY**

**OPERATOR:** 

CONLEY P. SMITH OPERATING CO.

NAME:

**FOSTER FEDERAL #19-13** 

LOCATION:

**SW SW SECTION 19, T30S, R24E** 

**COUNTY/STATE:** 

SAN JUAN, UTAH

**ELEVATION:** 

GL: 5817' KB: 5830'

SPUD DATE:

12/05/95

**COMPLETION DATE:** 

12/15/95

**DRILLING ENGINEER:** 

**BOB MOORE** 

WELLSITE GEOLOGY:

**DAVE MEADE** 

**MUDLOGGING:** 

\_\_\_

**ENGINEERS** 

ROCKY MOUNTAIN GEO-ENGINEERING CORP. DAVE MEADE / MARVIN ROANHORSE

**CONTRACTOR:** 

4 CORNERS DRILLING RIG #7
JOE McELEARTH

TOOLPUSHER:

- WILLIAM METAL

**HOLE SIZE:** 

12 1/4" 0-1510'; 7 7/8" 1510'-5034'

**CASING RECORD:** 

8 5/8" SET AT 1510'

**DRILLING MUD:** 

DRILLING FLUIDS INC.

**ENGINEER:** 

ROBERT RIDDLE

**MUD TYPE:** 

0'-4250' FRESH WATER/GEL; 4250'-TD LSND CHEM MUD

**CORES:** 

NONE

**DRILL STEM TESTS** 

**BAKER-LES WHITING** 

**ELECTRIC LOGS:** 

**SCHULMBERGER** 

**ENGINEER:** 

RODGER SITTON/

TYPE LOGS:

GR/LDL-CNL/CAL/PHASOR INDUCTION/SFL

TOTAL DEPTH:

DRILLER: 5030' LOGGER: 5034'

**STATUS:** 

PLUGGED & ABANDONED

# **DRILLING CHRONOLOGY**

## CONLEY P. SMITH OPERATING CO. FOSTER FEDERAL #19-13

DATE	DEPTH	DAILY	ACTIVITY
121/05/95 (01)	0'	112'	MOVE RIG & RIG UP-DRLG RAT & MOUSE HOLE-DLRG 12 1/4" HOLE W/BIT #1
12/06/95 (02)	112'	1250'	SURVEY-DRLG-SURVEYS-DRLG
12/07/95 (03)	1362'	148'	DRLG-CIR-SHORT TRIP-CIR-DROP SURVEY-TOH & SLM-RUN 8 5/8" CASING-CMT-W.O.CMT-CUT OFF CSG & WELD WELL HEAD-PRES. TEST-WORK ON RIGHT ANGLE DRIVE-NIPPLE UP BOP-PRES TEST
12/08/95 (04)	1510'	897	PRES TEST-MAKE UP BHA-TIH W/BIT #2-DRLG CMT & SHOE- DRLG 7 7/8" HOLE-SURVEY-DRLG
12/09/95 (05)	2407'	990'	DLRG-SURVEYS-DRLG
12/10/95 (06)	3397	572'	DRLG-SURVEY-DRLG-WORK ON TAIL SHAFT-DLRG-T0H 35 STDS-WORK ON TAIL SHAFT
12/11/95 (07)	3969'	526'	DRLG-RIG REPAIRS (BRAKE GEAR)-SURVEY-TOH-TIH W/BIT #3-DRLG
12/12/95 (08)	4495'	363'	DRLG-SURVEY-DRLG
12/13/95 (09)	4858'	132'	DRLG-CIR SPLS @ 4981'-DRLG-CIR SPLS @ 4990'-CIR & COND MUD FOR DST #1-SHORT TRIP-CIR
12/14/95 (10)	4990'	37°	TOH-PICK UP TEST TOOL-TIH-RIG SURFACE EQUIP-DST#1- TOH-LAY DOWN TEST TOOL-TIH-DRLG
12/15/95 (11)	5027'	3'	DLRG-TD @ 5030'-CIR-SHORT TRIP-CIR-TOH & SLM-RIG UP LOGGERS-LOGGING-RIG DOWN LOGGERS-TIH & W.O. ORDERS-START PLUGGING PROCEDURES

## ROCKA MOUNTAIN GEO-ENGINEERING CORP. BIT RECORD - FEET PER DAY - DEVATION

(903) 243-3044

WELL NAME FOSTER FEDERAL #19-13

ELEVATION: GL5817 KH5830

COMPANY: CONLEY PSMITH OPERATING CO.

CONTRACTOR: 4 CORNERS DRILLING RIGHT

SECTION: SW SWSEC, 19, T308-R24E

SPUD DATE: 12/05/95

COUNTY & STATE: SAN JUAN LITAH

T.D. DATE: 12/15/95

		_	BIT	RECORD	)				ET DED :	2437	T ===	
RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	Waym			ET PER I	JAY	DEV	IATION
	12.25	RTC	HP51X	1510	1510	HOUR:		DATE	DEPTH	FT	DEPTH	DEV.(DE
	7.87	STC	F-2H	3906	2396	51.5		12/5/95	0	112	4	1
	7.87	STC	F-3H	5030	1124	62.75		12/6/95	112	1250	252	1
						+	17.5	12/8/95	1362	148	-	1
						1		12/9/95	1510 2407	897	950	1
						†		12/10/95	3397	990 572	1510	0.5
		<u> </u>						12/11/95	3969	526	1986 2487	0.75
								12/12/95	4495	363	2991	1.25 1.25
		<u> </u>		-				12/13/95	4858	132	3524	1.25
								12/14/95	4990	37	4021	1.5
				<del> </del>				12/15/95	5027	3	4521	0.75
			<b> </b>	<del> </del>		<u> </u>		TD	5030	0	5030	0.75
				<del> </del>								
				<del>  </del>		<del> </del>		<b></b>				
				<del>  </del>				<b></b>				
				<del>                                     </del>	<del></del>	<del> </del>	<del> </del>	<b> </b>	·			
							-	<b> </b>				
							<del>                                     </del>		<u>  </u>			
								<b> </b>	<del>  </del>			
									f			
												<del></del>
	I								<del>  </del>			
	<del></del> -											
					<del></del>							
					<del></del>							
_												
-												
										<del> </del>  -		<del></del>
	<del> </del> -									—— <u> </u> -		
	<del> -</del>	<del> -</del> -										
											<del></del>	
_		<del></del>									<del></del>	
$\neg$												
$\neg   \neg$												
				<u> </u>								

## ROCKY MOUNTAIN GEO-ENGINEERING CORP. MUD RECORD

(303) 243-3044

COMPANY NAME: CONLEY P SMITH

WELL NAME

FOSTER FEDERAL #19-13

			MUD	FUNNNEL	PLASTIC	YIELD	CEL												
DATE	DEPTH	WEIGHT	GRADIENT	vis	VIS	POINT	GEL STRENGTH		FILTRATE		ALKALINITY	CHLORIDE	CALCIUM	SAND %	SOLIDS %	OIL%	WATER %		CHROMATE
2/05/95	0	SPUD	MUD			FORNI	SIKENGIH	PH	API	CAKE	FILTRATE	PPM	PPM	CONTENT	CONTENT	CONTENT	CONTENT	% KCL	% PPM
2/06/93	500	SPUD	MUD										-			1			
2/07/93	1490	SPUD	MUD											-			-		
2/08/95	1600	FRESH	WATER	/GEL							***								
2/09/95	2800	FRESH		/GEL															
2/10/98	3600	FRESH		/GEL													***		
2/11/95	4200	FRESH		/GEL												_=_	•••		
2/12/95	4730	8.8	0.468	33	5	3	2/3	10.5	15	1/32	2/5	4600						-	
2/13/95	4980	9	0.468	33	6	4	2/3	10.5	14	1/32	.3/.5	4600	TR	<1/4	5		95		-
	4991	9	0.468	55	16	14	6/15	10	10	2/32	.2/.4	4600	900	<1/4	5		95	-	-
2/14/95	4991	DST#1	NO	CHECK	22	18	6/20	12.5	11.6	2/32	.3/.5 4.5/7.5	4600	240	<1/4	5		95	2	-
2/15/95	5030	9.2		56				8	9		4.3/1.3	12600	80	TR	11.5	_=	88.5		
									<u> </u>										
Ŕ																			
			•					<del></del>			1.	<del></del>							
					1										<del></del>				

# **SAMPLE DESCRIPTIONS**

OPERATOR: WELL NAME:

CONLEY P. SMITH OPERATING CO. FOSTER FEDERAL #19-13

DEPTH			LITHOLOGY
2500-2530	70%	SH	m-lt orng, redorng, orngbrn, sft-frm, sbplty-plty-sbblky, rthy-sl slty, occ sl sdy ip, sl calc, tr mica, grdg to shy SLTST
	20%	SLTS	lt-m orng, occ redorng, sft-fri, shy-occ v sl sdy, grdg to slty SH
	10%	SS	trnsl-clr, orng, vf -fgr, sbrnd-rnd, uncons-pcmt, pred free qtz gr-v rr sil cmt, cln, NFSOC
	TR	LS	orng, crpxl, mfrm-frm, v sl chky, cln- sl rthy, dns, tt, NFSOC
2530-2560	50%	SS	trust-cir occ oran AA pred from str. a.v. 6 - BOD ANDGO G
	30%	SLTST	trnsl-clr, occ orgn, AA, pred free qtz gr, f-g POR, NFSOC
	20%		AA
	TR	LS	AA
2560-2590	45%	SH	m-lt orng, redorng, orngbrn, frm-sft, sbplty-sbblky-plty, calc-sl lmy, rthy-slty ip, occ v sl sdy, grdg to shy SLTST
	35%	SLTST	m-lt orng, redorng, sft-fri, sl sdy- shy, tr mica, calc ip, grdg to slty SH
	20%	SS	AA, NFSOC
2590-2620	40%	SLTST	AA
	30%	SS	AA
	30%	SH	AA
2620-2650	40%	SS	AA
	35%	SLTST	AA
	25%	SH	AA .
2650-2680	50%	SLTST	redorng-orng, occ brkred, fri-mfrm, sdy-v sdy, mica, sl calc, v arg, occ grdg to slty SH
	30%	SS	clr-trnsl, orng-ltorng ip, vf-f gr, sbrd-ang, w srt, uncons, n cmt in, n-v sl
	20%	SH	calc cly cmt, v sl mica ip, occ sl slty, tt, NFSOC
	TR	LS	tan, crm-wh, crpxl, frm, cln, dns, tt, NFSOC
2680-2710	50%	SS	pred orng-ltorng, redorng ip, AA, tt-tr intgr POR, NFSOC
	40%	SLTST	AA
	10%	SH	redorng-orng, occ ltgn-brkred, sbblky-plty, sft-mfrm, n-sl calc, mica, rthy, slty-v slty, sdy ip, v sl bent
2710-2740	70%	SS	redorng-orng, clr-trnsl-ltgy ip, ang-sbrd, w-m srt, uncons, v sl p cmt, occ sl-n calc cmt, v sl mica, tt-tr intgr POR, NFSOC
	20% 10%	SLTST SH	AA, occ grdg to v slty SS AA

2740-2770	80%		AA
	15%	SLST	orng-redorng, occ brkred, fri-mfrm, sdy-v sdy, sl mica, n-sl calc, shy ip,
	5%	SH	occ grdg to v sity SS AA
		21	AA
2770-2800	60%		AA
	25%	SH	orng-redorng, offwh, ltgn ip, sbblky-plty, sft-frm, mica, sl slty, v sl sdy, n-
			sl calc, occ sl bent
•	15%	SS	AA
	TR	LS	ltgy-crm, occ redorng, crpxl, frm, cln-sl arg, dns, tt
2800-2830	40%	SLTST	AA, pred redorng, occ redbrn
	40%	SS	redorng, clr-trnsl, occ ltorng-ltgy, vf-f gr, occ m gr, sbang-sbrd, w srt,
			uncons, p cmt ip, n-v sl calc cly cmt, v sl mica, cln-occ v slty, tt-v rr intgr POR, NFSOC
	20%	SH	AA
	TR	LS	AA
2830-2860	90%	SS	ltorng, occ trnsl-clr, vf-f gr, occ m gr, ang-sbrd, w srt, uncons, tr intgr POR, NFSOC
	5%	SLTST	AA
	5%	SH	AA
	TR	LS	AA
2860-2890	100%	SS	AA, occ m-c gr, NFSOC
	TR	SLTST	AA
	TR	SH	AA
2890-2920	40%	SLTST	redorng-redbrn, occ ltorng-brkred, fri-mfrm, sl mica, n-v sl calc, shy, sdy
	40%	SS	AA
	20%	SH	redorng-redbrn, ltgn-offwh, sbblky-plty, sft-mfrm, mica, rthy, sl bent, v sl slty, n-v sl calc
	TR	LS	ltgy-crm, occ redbrn, crpxl, frm, rthy-cln, dns, occ grdg to v lmy SH ip
2920-2950	60%	SS	trnsl-clr-orng-ltorng, occ redorng, vf-m gr, sbrd-ang, w-m srt, uncons, tr
	20%	CIT	intgr POR, NFSOC
	20% 15%	SH	AA
	5%	SLTST	AA
	J/0	LS	AA
2950-2980	70%	SLTST	redorng-brkred, occ orng, fri-frm, sdy-v sdy ip, shy, mica, rthy, n-v sl calc
	20%	SS	AA, occ grdg to v sdy SLTST
	10%	SH	AA, occ ltorng, lt-mgy ip, n calc

	2980-3010			TR METAL FRAG
		60%	SLTST	
		25%	SS	orng-ltorng, redorng ip, occ trnsl, vf-f gr, sbang-sbrd, w srt, p-m cmt, n
				sl calc cly cmt, mica, sl shy, slty-v slty, grdg to v sdy SLTST ip, tt, NFSOC
		15%	SH	ltorng, redorng, offwh-ltgn, occ ltgy-brn, sbblky-sbplty, sft-frm, rthy, v slty, mica, v sl bent, n-v sl calc
	3010-3040	50%	SS	AA
		40%	SLTST	AA, occ grdg to v slty SS
		10%	SH	AA
	3040-3070	90%	SS	orng-ltorng, occ trnsl-clr, vf-f gr, occ m gr, sbrd-sbang, uncons, tr intgr POR, NFSOC
		5%	SLTST	AA
		5%	SH	AA
	3070-3100	60%	SS	AA
		20%	SLTST	orng-redorng, occ brkred-redbrn, fri-mfrm, mica, sdy, v shy, n-v sl calc, occ grdg to v slty SH
		20%	SH	orng-redorng, occ redbrn-ltgn-lt-mgy, sbblky-plty, sft-mfrm, sl mica, slt
		TR	LS	ip, v sl sdy, n-v sl calc tan-ltgy, crm ip, crpxl, frm, v arg, occ cln-dns, grdg to v lmy SH ip
	3100-3130	70%	SLTST	AA. v sdy, occ grdg to v slty SS
		20%	SH	AA, sl calc-calc, occ n calc
		10%	SS	AA, v slty, occ grdg to v sdy SLTST
:	3130-3160			TR METAL FRAG
		85%	SS	clr-trnsl, ltgy-ltorng ip, vf-f gr, occ m-scat c gr, rd-sbang, w-m srt, unco w/occ scat offwh-wh n calc CLYST frag, rr-tr intgr POR, NFSOC
		10%	SLTST	ltgy-gy, gygn ip, fri-frm, sdy, mica-v mica, sl'shy, calc, occ grdg to v slt
		5%	SH	vf gr SS AA, occ ltgy-ltgn, v slty ip
3	3160-3190			TR METAL FRAG
		45%	SLTST	AA
		25%	SS	AA
		20%	SH	AA
		10%	LS	tan, ltgy, crm, crpxl, frm-mfrm, shy-sl slty, rthy ip, cln, dns, tt, NFSOC
3	3190-3220	80%	SS	AA, uncons, tr wh-off wh n calc CLYST frag, rr-tr intgr POR, NFSOC
		10%	SH	AA
		5%	LS	AA
		5%	SLTST	AA

3220-3250	45%	SH	m-dk brn, ltbrnorng, m-lt brngy, occ orng, frm-sft, sbplty-sbblky, rthy-slty
			ip, occ v sl calc, tr mica, grdg to shy SLTST
	35%	SS	trnsl-clr-wh, vf-fgr, sbrnd-sbang, msrt, mcmt-uncons, wh sl calc cly-sil
			cmt, tr wh sl calc cly fl, cln,tt, NFSOC
	10%	SLTST	
	10%	LS	tan, ltgy, crm, crpxl, frm-mfrm, sl shy ip, v sl chky, cln, dns, tt, NFSOC
3250-3280	45%	SS	AA/ sl incr wh cly fl, cln- v sl ark ip, tt, NFSOC
	40%	SH	AA
	10%	SLTST	
	5%	LS	AA
3280-3310	35%	SH	AA
	25%	LS	ltgy-ltgybrn, tan, crm, crpxl, mfrm-frm, shy-rthy, sl chky ip, cln, dns, tt, NFSOC
	15%	SLTST	AA
	15%	SS	AA
	10%	CHT	brn-tan, occ trnsl,
			,
3310-3340	35%	LS	tan-crm, brn, occ off wh-trnsl, crpxl, mfrm-frm, shy-sl slty, chty, occ v
	25%	SS	chky-grdg to CLYST ip, cln, dns, tt, NFSOC
	2570	UU	trnsl-clr-wh. vf-fgr, sbrnd-sbang, wsrt,uncons-memt, cale cly cmt/ occ wh cale cly fl, tt-tr intgr POR, NFSOC
	20%	CHT	AA
	15%	SH	AA
	5%	SLTST	AA
3340-3370	50%	SS	AA, incr wh calc cly fl grdg to CLYST ip, tt-tr intgr POR, NFSOC
	20%	SH	lt-dkgy, brn, occ ltbrngy, sft-frm, sbplty-sbblky, slty ip,tr mica, rthy
	15%	LS	AA
	10%	CHT	AA
	5%	SLTST	AA
	****		
3370-3400	50%	LS	tan, ltgybrn, brn, crpxl-micxl, frm-sft, slty-sl shy, occ sl sdy, rthy, v sl
	0.50/	99	chky, tr cht, cln,dns, tr intxl POR-tt, NFSOC
	25%	SS	AA
	10%	SH	AA
	10%	CHT	AA
	5%	SLTST	brn, dkbrngy, sft, calc ip, rthy-sl sdy, grdg to slty LS
3400-3430	45%	SS	trnsl-clr, occ ltbrn-ltbrngy, vf-fgr, occ mgr, sbang-sbrnd, uncons-mcmt,
			sil-wh calc cmt/wh calc cly fl, msrt, tr mica, n vis POR, NFSOC
	30%	LS	tan, brn, ltbrngy, occ crm, crpxl, frm-mfrm, occ sl slty-rthy, tr cht,cln, dns, tt, NFSOC
	15%	SH	pred m-dkgy, AA
	5%	SLTST	AA
	5%	CHT	AA

3430-3460	40%	LS	AA
3430 3400	30%	SH	m-dkgy, sbplty-sbblky, frm, slty-sl sdy, tr mica, v rr carb frag, n calc,
			rthy, grdg to shy SLTST ip
	25%	SS	AA
	5%	SLTST	AA
3460-3490	65%	LS	tan-crm-wh, ltbrngy, brn, crpxl, mfrm-frm, v sl shy, v- sl chky, sl chty, cln, dns, tt, NFSOC
	15%	SH	AA
	10%	SLTST	AA
	5%	CHT	tan, brn, occ trnsl
	5%	SS	AA
3490-3520	45%	LS	AA, shy-v sl slty ip, sl chky, sl chty, cln, dns, tt, NFSOC
	30%	SH	brn, orngbrn,m-dkgy, sbplty-sbblky, frm-sft, sl slty, sl-n calc, tr mica, rthy, grdg to shy SLTST
	15%	SS	trnsl-clr, occ ltgy-ltgybrn, vf-fgr, sbrnd-sbang, mcmt, calc cly-sil cmt, tr wh calc cly fl, cln-occ ark ip, n vis POR, NFSOC
	10%	SLTST	AA
	TR	CHT	AA
3520-3550	60%	SLTST	ltgy-gy, occ ltgybrn, fri-frm, calc, mica, v sl shy, sdy, occ grdg to v slty vf gr SS
	20%	LS	brn, crm-tan ip, crpxl, frm-mhd, occ rthy, cln, v sl arg, occ v sl slty, dns, tt, NFSOC
	10%	SH	AA
	10%	SS	trnsl-clr, occ ltgy, vf gr, sbang-sbrd, w srt, p cmt-uncons, n-sl calc cly cmt, sl mica, v sl arg, slty-v slty, occ grdg to v sdy SLTST, tt-v rr intgr POR, NFSOC
	TR	CHT	orng-trnsl
3550-3580	40%	SLTST	AA
	30%	LS	AA
	20%	SH	lt-mgy, gybrn, redorng-orng, occ gn ip,sbblky-sbplty, sft-frm, n calc-calc, mica, slty, v sl sdy, rthy
	10%	SS	AA
	TR	CHT	AA ·
3580-3610	100%	SS	clr-trnsl, occ pale orng-redorng, vf-f gr, m gr ip, sbang-sbrd, w srt, uncons, w/tr glau xl, occ mica & wh CLYST frag, rr-tr intgr POR, NFSOC
	TR	SH	AA
	TR	LS	AA
	TR	SLTST	AA

3610-3640	90%	SS	AA
	10%	SLTST	AA .
	TR	SH	AA
	TR	LS	AA
3640-3670	90%	SS	clr-trnsl, occ orng-fros, vf-f gr, occ rr m gr, sbang-sbrd, w srt, uncons, w/occ mica flks-glau & fld xl, tr wh-orng CLYST frag, tr intgr POR, NFSOC
	10%	SH	orng-redorng, occ m-dkgy-brn, sbblky-sbplty, sft-frm, rthy-v sl slty, sl calc-calc, mica ip, rthy, v sl slty
	TR	SLTST	
	TR	LS	AA
3670-3700	65%	SS	AA, pred cvgs
	25%	LS	crm-tan, occ offwh, crpxl, frm-mhd, cln-dns, occ rthy, v sl slty-v sl sdy, chk ip, tt, NFSOC
	10%	SH	AA
	TR	SLTST	AA
3700-3730	70%	SS	AA, occ v lmy, grdg to v sdy LS ip
	20%	LS	AA, sdy ip, w/intbd free SS grs, occ grdg to v sdy LS
	10%	SH	AA
	TR	SLTST	AA
3730-3760	60%	SS	pred cvgs, AA
	20%	SLTST	redbrn-redorng, orng, lt-m gy, occ gybrn, fri-frm, sdy-v sdy, mica, calc, v shy, occ grdg to v slty vf gr SS
•	10%	LS	AA, occ gy, sdy ip
	10%	SH	redorng-redbrn, orng, lt-mgy-gybrn ip, sbblky-sbplty, sft-frm, mica, rthy, v sl calc-calc, occ sl carb, slty-v sl sdy
3760-3790	35%	SS	AA
	30%	LS	crm-tan, ltgy-wh ip, crpxl-micxl, frm-mhd, rthy-cln, occ chk, v sl arg-v sl slty, tt, NFSOC
	20% 15%	SLTST	pred redbrn, AA, grdg to slty SS ip
	13%	SH	redbrn-ltgy, AA
3790-3820	40%	LS	AA, bcmg brn, occ gybrn, pred wh-crm, sl slty, mrly ip, occ grdg to lmy SH
	20%	SLTST	AA
	20%	SH	AA. pred m gybrn-mgy
	20%	SS	clr-trnsl, vf-f gr, AA
3820-3850	35%	SH	lt-mgy, occ gybrn, redorng-redbrn ip, sbblky-plty, sft-frm, rthy, sl slty, mica ip, v sl sdy, occ v sl carb, lmy ip, occ grdg to v shy LS
	30%	LS	AA
	20%	SLTST	gybrn-gy, occ ltgy, fri-frm, sdy, mica, shy, rthy, lmy-v lmy
	15%	SS	AA

3850-3880	30%	SS	clr-trnsl, occ ltgy-fros, vf-f gr, occ m gr, sbang-sbrd, w srt, uncons-p cmt, v sl calc-arg cmt, mica, v sl slty, occ grdg to v sdy SLTST, tt-tr intgr
	30%	LS	POR, NFSOC crm-tan-ltgy, occ gybrn-offwh, crpxl-micxl, frm-mhd, cln, occ rthy, chk ip,
			v sl chty, occ slty, v rr mic fos, tt, NFSOC
	25%	SH	AA
	15%	SLTST	AA
	TR	CHT	clr-trnsl, occ bf
3880-3910			SMPL LAT FOR BIT #3, ABNT VAR COL SH & SLTST CVGS
	60%	SS	clr-trns-fros, occ ltgy, vf-fgr, sbang-sbrd, w srt, uncons, occ w cmt, sl calc-arg cmt, v rr mica, tt-tr intgr POR, NFSOC
	20%	LS	AA
	15%	SH	AA
	5%	SLTST	AA
	TR	CHT	AA
3910-3940	55%	LS	tan, brn, ltbrngy-ltgy-crm, occ offwh, crpxl-micxl, cln-occ rthy, sl chky, v sl chty, slty-occ sl sdy ip, tr mic fos, tt, NFSOC
	20%	SS	pred uncons AA
	15%	SH	dk brn-dk brnblk, dk brngy, frm-sft, sbplty-sbblky, occ plty, rthy-slty, tr pp mica, v sl calc, v-sl carb ip, occ grdg to shy SLTST
	10%	SLTST	AA
	TR	CHT	AA
3940-3970	75%	LS	tan-brn, ltbrngy ip, occ crm, crpxl-micxl, cln, sl chky, v sl chty, sl shy-occ v sl slty, dns, tt, NFSOC
	15%	SH	m-dkgy,occ dkgyblk-dkbrnblk, frm-sft, sbbplty-sbblky, rthy-slty, n-v sl calc, sl carb
	10%	SS	AA
	TR	SLTST	AA
	TR	CHT	AA
3970-4000	85%	LS	AA
	10%	SH	AA
	5%	SLTST	ltgy, ltgybrn, fri-sft, sl-v calc, occ lmy ip, rthy, grdg to slty LS
	TR	CHT	trnsl,bf
	TR	SS	AA
4000-4010	80%	LS	AA
	10%	SH	AA
	5%	SLTST	AA
	5%	CHT	AA
	TR	SS	AA

4010-4020	85%	LS	tan-brn, ltbrngy, AA,cln,dns,tt, NFSOC
	10%	SH	AA
	5%	SS	trnsl-clr, vfgr, sbanr-sbrd, uncons, occ p cmt, sl calc cly cmt, cln, tt, NFSOC
	TR	SLTST	AA
	TR	CHT	AA
4020-4030	90%	LS	tan-crm-off wh, occ brn,crpxl-micxl, frm-mfrm, cln, chky, sl chty, occ v slty-sl sdy ip, tt-tr intxl POR, NFSOC
	10%	SH	dkbrn-dkbrnblk, dkgyblk, frm-sft, slty ip, v rr pp mica, carb ip, occ grdg to shy SLTST
	TR	CHT	trnsl-clr, bf
	TR	SLTST	AA
4030-4040	80%	LS	AA
	15%	SH	AA
	5% cm	CHT	AA
	TR	SLTST	AA .
4040-4050	80%	LS	tan-crm-off wh, occ brn, crpxl, occ micxl, cln, chky, chty, tr mic fos, tt, NFSOC
	10%	SH	AA
	10%	CHT	AA
	TR	SLTST	AA
4050 4060	700/	1.0	•
4050-4060	70% 20%	LS	AA
	10%	CHT SH	brn, trnsl-clr
	1076	SH	AA
4060-4070	50%	LS	m-dkbrn, occ tan-crm-off wh, crpxl-micxl, rthy, shy-occ sl slty, sl chky, chty, tt, NFSOC
	40%	SH	m-dkbrn,m-dkbrngy, mfrm-frm, occ brit, sl slty ip, rthy, lmy-calc, grdg to shy LS
	10%	CHT	AÅ
4070-4080	55%	LS	AA
	40%	SH	AA
	5%	CHT	AA
	0	OIII	AA.
4080-4090	60%	LS	AA
	35%	SH	AA
	5%	CHT	AA
4090-4100	50%	SH	
7070 <del>-7</del> 100	40%	LS	AA
	10%		AA
	1070	CHT	AA

4100-4120	40%	SS	clr-trnsl, ltgy-fros, vf-f gr, sbang-sbrd, w srt, uncons-p cmt, sl calc-n calc
			cly cmt, mica, v sl slty, v sl lmy, tr fld xl, tt-rr intxl POR, NFSOC
	30%	LS	tan-crm-brn, ltgy-ltgybrn, crpxl-micxl, frm-mhd, rthy-cln, sl slty-sl sdy, v
	10%	SH	sl mica, occ shy, fos ip, tt, NFSOC m-dkgy, occ ltgy, redbrn-redorng cvgs ip, sbblky-sbplty, sft-frm, mica,
			rthy, sl slty, v sl carb, calc-v sl dol
	20%	SLTST	ltgy-ltgybrn, fri-frm, sdy-v sdy, mica, sl arg, lmy, occ grdg to v slty SS
4110-4120	50%	SS	AA
	20%	LS	AA
	20%	SLTST	AA
	10%	SH	AA
4			
4120-4130			ABNT REDORNG-REDBRN-VARI COL SH & CLR SS CVGS
	30%	SS	AA
	30%	LS	AA
	20%	SLTST	AA ·
	20%	SH	redbrn, occ lt-mgy, sbblky-sbplty, sft-frm, rthy, sl slty, mica, sl calc-calc,
			v sl carb
4130-4140			TR VARI COL SH-SS CVGS
	50%	LS	brn-crm-tan, occ ltgy-gy, crpxl-micxl, frm-mhd, rthy-cln, occ chk, dns, v sl
	20%	SH	slty, occ v sl sdy, rr mic fos, tt, NFSOC
	20%	SLTST	AA
			ltgy-gybrn, occ ltbrn, fri-frm, sdy, mica, v lmy, sl shy, occ grdg to v slty SS
	10%	SS	AA ·
4140-4150	70%	LS	AA, occ grdg to v lmy SH
	20%	SH	lt-mgy, occ gybrn, sbblky-sbplty, sft-frm, rthy, lmy, mica, v rr mic fos, v sl carb, occ grdg to v shy LS
·	10%	SLTST	AA
4150-4160	85%	LS	pred tan-crm, AA, NFSOC
	10%	SH	AA
	5%	SLTST	ltgy-ltgybrn, fri-frm, rthy, sl mica, occ v sl sdy, lmy, occ grdg to v slty LS
	TR	SS	pred cygs
			proceedings
4160-4170	75%	LS	tan-crm, ltgy-brn, occ offwh, crpxl-micxl, frm-hd, cln, occ rthy-sl slty, v sl
	10%	SH	mica, chty, v sl anhy, rr mic fos, tt, NFSOC
	10%		AA
		CHT	trnsl-clr, bf
	5%	SLTST	AA

4170-4180	80% 10% 10%	LS CHT SLTST	AA AA ltbrn-ltgy, occ ltgybrn, fri-frm, sl sdy, mica, shy ip, v lmy, occ grdg to v
	TR	SH	sity LS AA
4180-4190	70%	LS	brn-mbrn, occ tan-crm, gybrn ip, crpxl-micxl, sft-mhd, rthy, occ cln-dns, s sl slty, shy-v shy, occ grdg to v lmy MRLST, v rr mic fos, chty, tt, NFSOC
	20%	SH	brn-mgybrn, lt-m gy ip, sbblky-sbplty, sft-frm, rthy, v sl slty, mica ip, lmy-v lmy, occ grdg to v shy LS
	5%	CHT	trnsl-bf
,	5%	SLTST	AA
4190-4200	70%	SH	AA, occ grdg to v shy MRLST
	30%	LS	AA
	TR	CHT	AA
4200-4210	55%	SH	AA
	30%	LS	AA
	10%	SLTST	AA
	5%	CHT	trnsl-bf
4210-4220	55%	LS	crm-tan, wh, occ brn-ltgy, crpxl-micxl, frm-mhd, cln-dns, occ rthy-chk, chty, v sl slty, v rr mic fos, sl sdy, tt-v rr intxl POR, NFSOC
	20%	SH	AA
	15%	CHT	AA
	10%	SLTST	ltgy-ltgybrn-tan, fri-mfrm, sl sdy, mica, sl shy, lmy-v lmy, occ grdg to v slty LS
4220-4230	70%	LS	AA, v chty, incr chk, sl anhy
	20%	SH	m-dkgy, occ lt-mgy, sbblky-sbplty, sft-frm, mica, rthy, sl slty, v sl carb, calc-v lmy, occ grdg to v shy LS
	10%	CHT	trnsl-clr, bf
4230-4240	80%	LS	tan, crm-wh, crpxl, occ micxl, frm-hd, cln-dns, occ rthy-chk, v sl slty, chty-v chty, v sl anhy, n-v rr mic fos, tt, NFSOC
	10%	SH	AA
	10%	CHT	AA
4240-4253			NO SAMPLE-SHAKER BYPASSED TO REPLACE SCREEN & FOR REPAIRS

4253-4260	60%	LS	tan-crm, occ wh-ltgy, crpxl-micxl, frm-hd, rthy-slty, occ cln, sl shy, dns, chty-v chty, v sl anhy, rr mic fos, v sl sdy, mica ip, occ grdg to v lmy SLTST, tt-v rr intxl POR, NFSOC
	25%	SLTST	
	15%	CHT	tan-ltgy, fri-frm, sl sdy, mica, sl shy-v arg ip, v lmy, occ grdg to v slty LS trnsl-bf, occ clr, trip ip
	TR	SH	AA
			AA .
4260-4270	60%	LS	AA
	30%	SLTST	AA
	10%	CHT	AA
	TR	SH	AA
4270-4280	50%	LS	AA, v slty-v sl sdy, occ grdg to v slty LS
	35%	SLTST	AA
	10%	CHT	AA
	5%	SS	clr-trnsl, vf-f gr, sbang-sbrd, w srt, uncons-p cmt, lmy cmt-occ n calc cly
			cmt, mica, slty, v sl glau, tt, NFSOC
4280-4290	50%	LS	AA, v slty-v sl sdy, occ grdg to v slty LS
*	35%	SLTST	AA
	10%	CHT	AA
	5%	SS	clr-trnsl, vf-f gr, sbang-sbrd, w srt, uncons-p cmt, lmy cmt-occ n calc cly
			cmt, mica, slty, v sl glau, tt, NFSOC
4290-4300	45%	T C	
4230~4300	4.J.70	LS	tan-crm, occ brn-wh-ltgy, crpxl-micxl, frm-mhd, rthy-v slty, occ cln-dns, v
			sl shy, occ v sl anhy, chty, n-v rr mic fos, grdg to v lmy SLTST, tt-v rr
	450/	OT MICH	intxl POR, NFSOC
	45%	SLTST	AA, v lmy, grdg to v slty LS
	10%	CHT	bf, trnsl-clr ip
4300-4310	40%	LS	brn-mbrn, occ ltgy, AA, grdg to v lmy SH, v mrly
	40%	SH	m-dkbrn, m-gy ip, sbblky-sbplty, sft-brit, sl mica, slty ip, rthy, lmy-v lmy,
			occ grdg to v shy LS, v mlry ip
	15%	SLTST	lt-mbrn, ltgybrn, fri-frm, sl sdy, mica, shy-v shy, lmy
	5%	CHT	AA
4310-4320	60%	SH	AA
	20%	LS	AA
	20%	SLTST	AA
	TR	CHT	AA
4320-4330	50%	LS	ltgy-ltbrn, brn, occ crm-offwh, crpxl-micxl,frm-hd, cln-rthy,chk ip, slty-v
			slty, chty, v sl anhy, occ grdg to v lmy SLTST, tt-v rr intxl POR, NFSOC
	25%	SH	AA
	20%	SLTST	AA
	5%	CHT	trnsl-bf, occ clr

4330-4340	40 80% LS		tan-crm,occ wh, lt-mbrn ip, crpxl-micxl, frm-hd, cln-dns, occ rthy-slty,
	10%	SH	chty ip, occ chk, v sl anhy, v rr mic fos, tt, NFSOC lt-dkgy,m-dkbrn, occ gybrn-blk, sbblky-sbplty, sft-frm, occ brit, rthy, sl
	5%	SLTST	slty mica, v sl carb, sl sooty ip, lmy-v lmy, occ grdg to v shy MRLST ltbrn-brn, occ gybrn, fri-frm, sl sdy, occ mica, shy, lmy-v lmy, occ grdg to v sltv I.S.
	5%	CHT	v slty LS AA
4340-4350	55%	SH	m-dkbrn, lt-mgybrn, sbblky-sbplty, frm-hd, occ si sity, sl-v lmy, grdg to shy LS
	35%	LS	tan, occ crm-offwh, crpxl-mcixl, frm-mhfrm, cln-cn,s slhy-sl rthy, chk occ sl slty, sl chty, rr anhy, tt, NFSOC
	5%	SLTST	AA
	5%	CHT	AA
4350-4360	40%	SH	dk-mbrn, dkbrnblk, dkgyblk, sbblky-sbplty, frm-hd, sl-v lmy, sl carb, v sl mica, occ grdg to shy LS
·	35%	LS	tan-crm-offwh, crpxl-micxl, frm-mfrm, rthy-shy, occ sl slty, chky, sl chty, mot-cln, sl anhy-anhy, tt, NFSOC
	20%	SLTST	ltgy-ltgybn, fri-sft, sl sdy, lmy, w/occ LS include, grdg to slty LS
	5%	CHT	AA
4360-4370	70%	SH	dkgybrn-dkgyblk, mbrngy, plty-sbsplty, sbblky, occ fis, fri-mfrm, occ brit, sl carb, sl-v lmy, rthy-sl slty, occ grdg to v shy LS
	15%	LS	AA
	10%	SLTST	AA
	5%	CHT	AA
4370-4380	80%	SH	AA
	10%	LS	AA
	10%	SLTST	AA
	TR	СНТ	AA
4380-4390	60%	SH	dk-mgybrn, dkgyblk-blk, AA, incr carb, sl mica
	30%	LS	tan-crm-offwh, m-ltgybrn, brn, crpxl-micxl, mfrm-frm, occ sh, shy-sl slty, cln-dns, occ rthy, chky, rr anhy, v sl chty, tt, NFSOC
	10%	SLTST	traveltoniben of fried also shown beautiful to a select I C
	TR	CHT	ltgy-ltgybrn, sft-fri, sl sdy-shy p, lmy, trdg to v slty LS AA
4390-4400	70%	LS	tan-crm-wh, ltbrngy, brn, crpxl-micxl, mfrm-frm, occ hd, cln-dsn, sl shy, occ v sl slty, chk, chty, v rr mic fos, tt-v rr intxl POR, NFSOC
	20%	SH	AA
	10%	SLTST	AA
	TR	CHT	trnsl-clr,occ brn-smky

	4400-4410	60%	LS	wh-crm-tan, occ ltgybrn-brn, crpxl-mcixl, frm-mfrm, occ hd, cln, v sl slty,
				dns, occ sl shy, v chk, sl anhy, sl chty, tt, NFSOC
		30%	SH	dk-mgybrn, blk,, dk-mgyblk, plty-sbsplty-sbblky, fis ip, frm-brit, sl-v carb, lmy-v carb, sooty ip
		5%	SLTST	AA
		5%	CHT	AA
	4410-4420	60%	LS	AA
		35%	SH	incr blk, AA
		5%	CHT	AA
)  -		TR	SLTST	AA
	4420-4430	55%	SH	brn-m-ltgybrn, dkbrndkbrnblk-blk, sbblky-sbplty, frm-mfrm, rthy, lmy-v calc, tr LS include, occ grdg to v shy LS ip
		30%	LS	tan, ltgybrn, occ crm-offwh-brn, crpxl-micxl, mfrm-frm, occ hd, rthy-shy, cln-dns, sl chk, tt, NFSOC
		10%	SLTST	ltgy-ltgybrn, fri-sft, calc-lmy ip, shy-sl slty, grdg to slty LS
		5%	CHT	trnsl-cir, occ bf
,	4430-4440	45%	SH	AA
•		40%	LS	AA
		10%	SLTST	AA
1		5%	CHT	•
	4440-4450	50%	SH	AA, incr lmy-sl dol ip, occ grdg to shy LS
		35%	LS	AA
}		10%	SLTST	AA
		5%	СНТ	AA
	4450-4460	55%	SH	dk-mgybrn, dkbrnblk, dkgyblk, mfrm-hd, occ brit, plty-sbplty-sbblky, v rthy, calc-v lmy, sl dol ip, grdg to shy LS
	•	25%	LS	tan, ltgybrn, brn, occ crm-wh, crpxl-micxl, frm-mfrm, dns, rthy-shy, occ chk, sl chty, grdg to lmy SH
		15%	SLTST	ltgy-ltgybrn, frii-sft, sl calc-v lmy, occ v sl shy, grdg to v slty SH
		5%	CHT	trnsl-clr, occ bf-brn
	4460-4470	55%	SS	trnsl-crl-ltgy, ltgybrn, vf-f gr, sbang-sbrd, w-m srt, w-m cmt, sil-sl calc cly cmt, v slty, tr mica, tr carb include, rr glau, n vis POR, NFSOC
1		20%	SLTST	m-ltgy, fri-sdy, sdy, tr carb include, v sl calc, grdg to vfgr SS ip
		15%	SH	AA
•		10%	LS	AA
Ì		TR	CHT	AA

4470-4480	55% 20%	SS SH	AA, sl incr carb incl, tr mot wh calc cly fl, tt, NFSOC m-dkgy, occ dkgybrn-blk, ptlyl-sbplty-sbblky, frm-mfrm, rthy-sl slty, occ
	15%	SLTST	carb, n-sl calc
	10%	LS	AA AA
	1070		AA .
4480-4490	35%	LS	tan-lttybrn, crm-offwh, occ brn, crpxl-micxl, mfrm-hd, occ brit, rthy-sl shy, occ sl slty, chty, sl chk, cln, tt, NFSOC
	35%	SH	ltgybrn-brn, m-dkgy, occ dkgyblk, sbplty-sbsplty, sbblky, mfrm-brit, calc-sl dol ip, tr LS include, rthy-lmy, occ grdg to shy LS
	15%	SLTST	AA
	10%	SS	AA, NFSOC
	5%	CHT	trnsl-clr-mlky, brn-smky
4490-4500	40%	LS	AA
	30%	SH	AA
	15%	SLTST	AA
	10%	SS	AA, bcmg incr calc, tt, NFSOC
	5%	CHT	AA
4500-4510	30%	SH	ltbrn-ltgybrn, sbpty-sbblky-pty, frm-mfrm, occ sft, calc-lmy ip, v sl dol, rthy-slty, grdg to shy LS ip
	30%	LS	tan-ltgybrn, crm-offwh, occ brn, crpxl-micxl, frm-brit, rthy-shy, occ sl sty, v chty, chk, occ cln-dns, tt, NFSOC
	20%	CHT	mlky-trnsl, clr
	15%	SS	bcmg ltgybrn-trnsl
	5%	SLTST	AA
4510-4520	40%	SH	AA
	35%	LS	AA, occ grdg to mot lmy CLYST, tt-v rr intxl POR, NFSOC
	10%	CHT	AA
	10%	SS	AA
	5%	SLTST	AA
4520-4530	40%	SH	AA, grdg to shy LS ip
	35%	LS	pred tan-ltgybrn, crpxl-micxl, frm-mhd, rthy-sl slty, sl chty, chk ipk, dns, tt-tr intxl POR, NFSOC
	15%	SLTST	AA
	10%	CHT	<b>AA</b>
	TR	SS	AA

4530-4540	50%	SH	dkbrn-dkbrnblk-blk, m-dkgybrn, sbblkky-sbplty, mfrm-brit, sl calc-calc, occ sl dol, sl slty, carb ip, occ grdg to shy LS
	30%	LS	AA
	10%	SLTST	
	10%	SS	AA
	TR	CHT	AA
			7M1
4540-4550	50%	LS	crm-tan-brn, occ gybrn, crpxl-micxl, frm-mhd, rhty-slty, occ cln-dns, v sl slty-sdy, v rr mic fos, v sl mcia, sl anhy ip, occ grdg tov lmy SLTST, tt-v rr intxl POR, NFSOC
	40%	SH	AA
	10%	SLTST	gybrn-brn, occ ltgy, fri-frm, sl-v shy, lmy, occ sl sdy, mica, grdg to v slty SH ip
	TR	CHT	trnsl-bf
4550-4560	50%	SH	m-dkgy-dkgybrn, occ blk, sbblky-sbplty, sft-frm, occ brit, rthy-slty, calc, v sl carb, occ sooty, sl mica, mrly, occ grdg tov shy MRLST
	40%	LS	AA
	10%	SLTST	AA
	TR	CHT	AA, occ smky brn
4560-4570	70%	LS	tan-ltgy, occ crm-wh, brn ip, crpxl-micxl, frm-hd, cln, occ rthy-chk, v sl sdy, slty ip, occ arg, chty, sl anhy, dns, tt, NFSOC
	20%	SLTST	ltgy-ltgybrn, fri-frm, rthy-arg, sl sdy, mica, v lmy, occ grdg tov slty LS
	10%	SH	AA
	TR	CHT	trnsl-bf
4570-4580	55%	LS	AA, occ grdg to v lmy SLTST
	30%	SLTST	AA
	10%	SH	AA
	5%	SS	clr-trnsl, ltgy, vf-f gr, sbang-sbrd, w srt, uncons-p cmt, v sl arg-calc cmt, v
			slty ip, sl arg, occ mica, grdg tov sdy SLTST, tt-v rr intgr POR, NFSOC
	TR	CHT	AA
4580-4590	55%	LS	crm-tan-ltgy, occ ltgybrn-wh, crpxl-micxl, sft-mhd, cln-dns, occ rthy-slty, v sl anhy, chty, v rr mic fos, chk ip, sl shy, tt, NFSOC
	20%	SLTST	AA
	15%	CHT	trnsl-bf, occ clr
	10%	SH	AA
4590-4600	60%	LS	AA
	20%	SLTST	ltgy-ltgybrn, occ tan, fri-frm, lmy-v lmy, sl sdy, mica, sl sdy, grdg tov slty LS
	20%	CHT	AA
٠	TR	SH	AA

4600-4610	60% 20%	LS SH	AA, being brn-mbrn, v slty, shy m-dkbrn, occ mgybrn, sbblky-sbplty, sft-frm, occ brit, rthy, sl slty, mica,
	15%	SLTST	mrly ip, occ sl carb, lmy-v lmy, grdg to shy MRLST AA
	5%	СНТ	AA
4610-4620	60%	LS	AA, ltgy-gybrn
	20%	SLTST	AA
	15%	SH	AA, occ blk
	5%	CHT	AA
4620-4630	70%	LS	tan-ltbrn,ltgybrn, crm-wh ip, crpxl-mcixl, frm-mhd, rthy-cln, sl slty-v slty ip, chty, occ chk, v sl anhy, arg ip, occ grdg to v lmy SLTST, tt, NFSOC
	15%	SLTST	AA
	10%	SH	AA
	5%	CHT	AA
4630-4640	70%	LS	AA
	20%	SLTST	ltgy-tan, occ ltgybrn, fri-frm, sl sdy, shy ip, occ mica, lmy-v lmy, occ grdg to v slty LS
	10%	SH	AA
	TR	CHT	AA
4640-4650	40%	LS	brn-mbrn, occ mgybrn, micxl-crpxl, sft-mhd, rthy-v shy ip, sl slty, occ cln, chk, v sl chty, rr mic-Crin fos, occ grdg to lmy SH, tt, NFSOC
	40%	SH	mgybrn-mbrn, sbblky-sbplty, sft-frm, occ brit, rthy, sl slty, lmy, mica, occ grdg to v shy MRLST, carb ip
	20%	SLTST	AA
	TR	CHT	trnsl-bf
4650-4660	60%	SH	AA
	20%	LS	AA
	20%	SLTST	AA
	TR	CHT	trnsl
4660-4670	60%	SH	AA
	30%	LS	AA
	10%	SLTST	ltgybrn-ltbrn, fri-frm, sl sdy ip, shy, mica, rthy, lmy, occ grdg to v slty SH
4670-4680	70%	SH	AA, sl dol, carb ip
	20%	LS	AA
	10%	SLTST	AA

4680-4690	60%	SH	m-dkbrn, m-dkgy, sbblky-sbplty, sft-brit, mica, rthy, sl slty, v sl mica,
	30%	LS	calc-v sl dol, occ sl carb, grdg to shy LS ip brn-mbrn, crm-tan ip, crpxl-micxl, frm-mhd, cln-rthy, sl slty, shy, v sl
	10%	SLTST	chty, occ sl anhy, grdg to v lmy SH, tt, NFSOC AA
4690-4700	70%	SH	AA
	20%	LS	AA
	10%	SLTST	AA
4700-4710	70%	SH	dkgy-blk, blky-sbplty, frm-brit, rthy, slty, mica, calc-sl dol, carb, sooty ip
	25%	LS	AA
	5%	SLTST	AA
4710-4720	80%	SH	<b>AA</b> • • • • • • • • • • • • • • • • • •
	15%	LS	AA
	5%	SLTST	AA
4720-4730	70%	SH	AA
	20%	LS	crm-brn, occ wh-gybrn, crpxl-micxl, sft-mhd, rthy, cln ip, sl slty-slty, v sl anhy, arg-v shy ip, v rr mic fos, tt, NFSOC
	10%	SLTST	brn-gybrn, occ ltgy, fri-frm, lmy-shy, mica, v sl sdy
4730-4740	45%	LS	brn-gybrn, offwh-crm, crpxl-micxl, micsuc ip, sft-mhd, rthy, occ cln-dns, sl slty, arg, ANHY ip, tt-v rr intxl POR, n-v rr mnrl FLOR, NSOC
	30%	SH	AA
	20%	ANHY	wh, amor, sft
	5%	SLTST	AA
4740-4750	55%	LS	AA, tt-tr intxl POR, v rr mnrl FLOR, NSOC
	25%	SH	AA
	15%	ANHY	AA
	5%	SLTST	AA
	TR	CHT	mlky-trnsl .
4750-4760			INCR AMT VCOL SH&SLTST CVGS
	45%	LS	tan-ltbrngy, brn, AA, tt, NFSOC
	25%	SLTST	ltbrn-ltbrngy, brn, frm-sft, v sl sdy ip, calc-lmy, grdg to slty LS
	15%	SH	dkbrngy-dkgyblk-blk,frm-brit, plty-sbplty, sl calc,tr pp mica,sl-v carb,sooty
	10%	ANHY	AA
	5%	CHT	trnsl-clr, smky

4760-4770	35%	LS	MOD AMT VCOL CVGS AA tan-ltbrngy, brn, occ crm, crpxl-micxl, occ mic suc, frm-mfrm, rthy-v slty,
	25%	SLTST	sl chky, chty, anhy, tt-tr intxl POR, NFSOC
	20%	SH	1-1, 8.48 to 5.6, 25
	15%	ANHY	AA, prob cvgs
	5%	CHT	
	276	CHI	AA
4770-4780	50%	LS	tan-crm-off wh, ltgybrn, crpxl-micxl, occ mic suc, mfrm-frm, occ brit, cln, v slty-shy ip, occ sl sdy, chky, chty, anhy, tt-tr intxl POR, NFSOC
	20%	SH	AA, prob cvgs
	15%	SLTST	AA, grdg to sity LS
	10%	ANHY	AA
	5%	CHT	AA
4780-4790	70%	LS	AA to intel DOD
4700-4770	15%	SH	AA, tr intxl POR, v rr mnrl FLOR, NSOC
	10%	ANHY	AA .
	5%		AA
	. 370	CHT	AA
4790-4800	50%	LS	AA, tr inxl POR, tr dull yel orng-yel FLOR, n vis STN, v p v fnt res ring CUT
	30%	ANHY	wh, occ trnsl, amor, xln
	15%	SH	AA
	5%	CHT	mlky-trnsl, occ brn
4800-4810	50%	T C	M 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1
4000-4010	3076	LS	crm-off wh-tan, brn, crpxl-micxl, mhd-frm, occ mic suc, cln-sl shy, v anhy, chky, chty, tt-v rr intxl POR, tr dull orng-yelorng FLOR, NSOC
	40%	AHNY	trnsl-clr, wh, xln, amor
	10%	SH	AA
	TR	CHT	AA
4810-4820	35%	ANHY	trnsl-clr-wh, xln, amor ip
	35%	LS	tan-crm-off wh, brn, occ ltbrngy, crpxl-micxl, frm-mfrm, cln,occ rthy-shy,
			occ sl slty, v anhy, chky, chty,dns, tt, tr-rr dull-brt yel-yelorng FLOR, NSOC
	25%	SH	mgybrn, dk-mgyblk, blk, plty-sbblky, frm-sft, slty ip,n-v carb, prob cvgs
	5%	CHT	mlky-trnsl
4820-4830	80%	DOL	ltbrn-tan, ltbrngy,occ brn, micxl-micsuc-crpxl, frm-mfrm, rthy-slty, sl chky, tt, rr-tr v dull orng FLOR, NSOC
	15%	LS	tan-crm, occ brn, crpxl-micxl, mhd-frm, cln, dns, sl chky, tt, NFSOC
	5%	SH	AA
	TR	CHT	AA
			4.4.4
			·

4830-4840	60% 15% 10%	DOL ANHY LS	tan-crm-off wh, crpxl-micxl, mfrm-mhd, cln, chty, anhy, sl chky, shy-oc			
	10%	SH	sl slty, tr intbd blk SH, occ sl dol ip, dns, tt, NFSOC blk, occ dkbrnblk, splty-sbplty-sbblky, frm-brit, v carb, n calc, occ v sl slty			
	5%	CHT	AA			
4840-4850	50%	DOL	AA, tt, NFSOC			
	40%	SH	blk-occ dkbrnblk-dkgyblk, plty-sbblky-sbsplty, frm-brit, occ slty, n calc, v carb			
	5%	ANHY	AA			
	5%	LS	AA, NFSOC			
4850-4860	95%	SH	blk-dkgyblk-dkgy, plty-sbplty-sbblky, mfrm-frm-occ sft, v carb, occ sl slty, sl-v calc, sooty			
	5%	LS	crm-tan-ltbrngy, crpxl-micxl, mhd-frm, cln-shy, chky, dns, tt, NFSOC			
	TR	DOL	AA, NFSOC			
	TR	ANHY	AA			
4860-4870	90%	SH	pred blk-dkgyblk, AA, v calc, sooty			
	10%	LS	AA, NFSOC			
	TR	ANHY	AA			
	TR	CHT	mlky-trnsi			
4870-4880	85%	SH	AA			
	15%	LS	AA, incr shy, NFSOC			
4880-4890	55%	DOL	m-dkbrn, m-ltgybrn, crpxl-micxl, mfrm-frm, occ mhd, rthy-shy ip, occ sl slty, cln, dns, v sl chty, tt, NFSOC			
	30%	SH	AA, calc-sl dol ip, v sl carb			
	10%	LS	tan-erm, occ offwh, crpxl-micxl, frm-mhd, cln-sl shy, chk, sl anhy, sl chty, tt-v rr intxl POR, NFSOC			
	5%	CHT	bf, mlky-trnsl			
4890-4900	65%	LS	tan-crm-trnsl, occ offwh, micxl-crpxl-micsuc, cln, grdg to lmy SLTST, shy ip, chk, chty, sl anhy, tt-v rr intxl POR, NFSOC			
	30%	SH	m-dkgy, blk-dkgyblk, plty-sbblky, frm-mfrm, sl slty, n-v carb, sl calc, sl dol ip			
	5%	CHT	mlky-trnsl			
4900-4910	55%	LS	AA			
	35%	SH	AA			
	5%	CHT	AA			
	5%	ANHY	AA			

4910-4920	60% 30%	ANHY LS	trnsl-wh, amor-xl, sft-frm AA, v slty-cln, tt-v rr intxl POR, v rr mnrl FLOR, NSOC
	10%	SH	blk-dkgy, AA
	TR	SLTST	gybrn, frm, v lmy, sl sdy, arg ip, mica
			gyorn, min, v miy, si suy, aig ip, mica
4920-4930	70%	ANHY	<b>AA</b> .
	20%	LS	AA, dol ip, v slty, occ grdg to v anhy-v lmy SLTST ip, NFSOC
	10%	SH	dkgy-blk, AA
4930-4940	40%	ANHY	wh-trnsl, xl, occ amor, sft-frm
	20%	LS	tan-ltgy, crm-offwh, crpxl-micxl, micsuc ip, frm-mhd, occ dns, rthy-slty, sl
			dol, chty, anhy ip, tt-v rr intxl POR, n-v rr dull mnrl FLOR, NSOC
	20%	DOL	ltbrn-gybrn, micxl-micsuc, frm, rthy, anhy, sl slty, arg, v sl lmy, tt-tr intxl
			POR, n-v rr v fint dull yel FLOR, NSOC
	10%	SH	AA
	TR	CHT	
	*10	CIII	trnsl
4940-4950	40%	ANHY	AA .
	30%	LS	AA, incr dns, rr intxl POR, NFSOC
	20%	DOL	AA, rr-tr intxl POR, n-v rr fnt dull yel FLOR, n vis STN, n-v rr v slow dif
			CUT
	10%	SH	
	1070	Dil	dkgy-blk, sbblky-sbpty, sft-brit, calc-dol, carb-sooty, rthy, slty ip, sl mica
4950-4960	40%	DOL	tan-brn, gybrn, micxl-micsuc, vfxl, frm, sl anhy, rthy-sl slty, v sl arg, lmy
			ip, sl anhy-tr ANHY incl, tt-tr intxl POR, n-v rr fnt dull yel FLOR, n vis
			STN, n-v p v slow dif CUT
	20%	LS	AA, NFSOC
	20%	ANHY	AA, NISOC AA
	20%	SH	· · · <del>-</del>
	2070	211	AA, dkgybrn, v dol, occ grdg to v shy DOL
4960-4970	40%	DOL	AA, tr-fr intxl POR, fr-dull yel FLOR, v rr ltbrn STN, rr slow dif-v slow
			stmg mlky CUT
	40%	LS	
	.070	20	wh-crm, tan, ltgybrn, crpxl-micxl, frm-mhd, rthy ip, cln, sl dol, anhy, slty
	10%	ANHY	ip, tt-v rr intxl POR, n-v fint dull yel FLOR, NSOC
			wh-trnsl, amor-xl, sft-frm
	10%	SH	AA
4970-4980	50%	DOL	Ithen browners migul misses as C.1 Co., 1: 41 14 14 1
	2070	DOL	ltbrn-ltgybrn, micxl-micsuc, occ vfxl, frm, cln, rthy-slty ip, sl anhy-v rr
			ANHY include, occ lmy, tt-fr intxl-v rr pp vug POR, fr dull-rr spty bri yel
	200/	T C	FLOR, n-rr ltbrn STN, tr slow stmg-tr slow dif CUT
	30%	LS	ltbrn-crm-offwh, crpxl-micsuc, frm-mhd, cln-sl rthy, sl anhy, dol ip, v sl
		•	slty, tt-tr intxl POR, n-rr spty bri yel FLOR, n vis STN, n-v p slow dif
			CUT
	10%	ANHY	AA

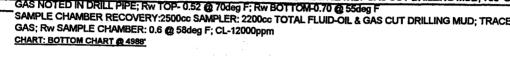
4980-4990	50%	DOL	ltbrn-ltgybrn, crpxl-micxl, AA, incr shy ip, tt-tr intxl POR, n-rr dull yel FLOR, n-v rr vis dkbrn STN, n-v p slow dif cut-v rr v slow stmg mlky CUT
	30%	LS	AA, incr crpxl, shy-dol ip, tt-v rr intxl POR, rr spty dull yel-mnrl dull mnrl FLOR, n vis STN or CUT
	20%	SH	dkgy-blk, dkgybrn, sbblky-sbplty, sft-frm, brit ip, calc-sl dol, mica, sl slty, carb-sooty
	TR	ANHY	wh-trnsl, xl, sl amor, sft-frm
4990-5000			P-F SMPL, LAT FOR DST, ABMT V COL CVGS
	80%	SH	blk-dkgyblk, dk-mgy, sbsplty-sbplty-sbblky, mfrm-frm, occ sft, rthy-sl slty, calc-sl dol ip, v carb, tr pp mica, sooty ip
	10%	DOL	AA
	5%	ANHY	AA
	5%	LS	AA
5000-5010			F-P SMPL, AA
	65%	SH	AA
	15%	LS	tan-ltbrngy, occ brn, crpxl-micxl, mfrm-frm, sl-v shy, occ sl slty, chky, anhy, sl chty, cln, dns, tt-v rr intxl POR,
	10%	ANHY	trnsl, wh, xl, amor
	10%	DOL	m-dk brn, micxl-mix suc-crpxl, frm, sl slty-rthy, sl shy, cln, dns, tt, NFSOC
5010-5020	90%	SH	blk-dkgyblk-dkbrnblk, plty-sbblky-sbsplty, occ fis, brit-frm-occ sft, calc- lmy, v carb, occ sl -v slty, tr pp mica, sooty
	10%	LS	AA
	TR	DOL	AA
	TR	ANHY	AA
5020-5030	95%	SH	AA
	5%	LS	AA
	TR	DOL	AA
	TR	ANHY	AA

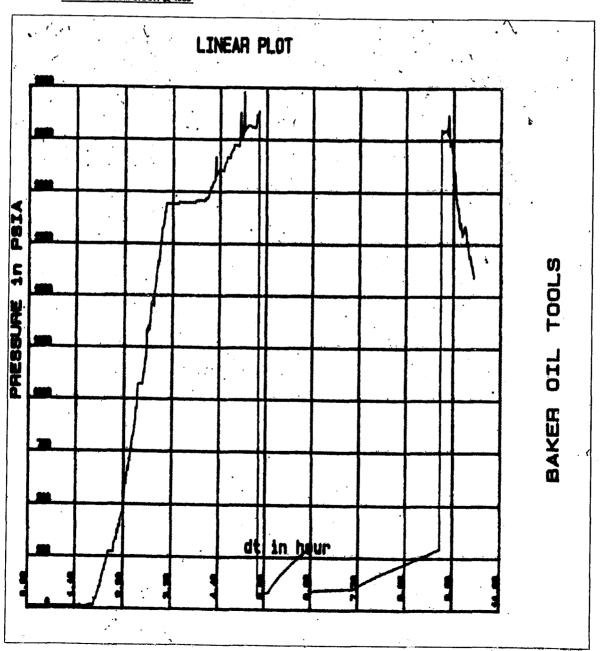
## **FORMATION TOPS**

**OPERATOR:** WELL NAME: CONLEY P SMITH OPERATING CO.

FOSTER FEDERAL #19-13

GL: 5817' KB: 5830'						
FORMATION NAME	PROGNOSIS	SAMPLE	E LOG	DATUM		
KELLY BUSHING	5830'	5830'	5830'	+5830'		
CUTLER						
VIRGIL	3240'	3266'	3300'	+2529'		
MISSOURI	3910'	3900'	3965'	+1864'		
DES MOINES	4290'	4270'	4305'	+1524'		
UPPER ISMAY	4685'	4728'	4737'	+1092'		
HOVENWEEP SHALE	****	4838'	4852'	+977°		
LOWER ISMAY	4835'	4878'	4885'	+944'		
PARADOX FORMATION	4935'	4987'	.4987'	+842'		
PARADOX SALT	5010'					
TD	5010'	5030°	5034'	+795'		
				•		





# ROCKY MOUNTAIN GEO-ENGINEERING CORP.

2450 Industrial Blvd. Grand Junction, Colorado 81505 (303)243-3044

## ZONE OF INTEREST SHEET

					ZONE	OF INTERES	T NO1_		
COMPANY	v coi	CONLEY P. SMITH OPERATING CO.							
WELL									
LOCATION SW SW SEC.19, T30S-R24E									
INTERVA	L From:	4963		To: 4978					
					· · · · · · · · · · · · · · · · · · ·				
DRILL RA	TE Above	3 M/FT Thru 2.5 TO 1.25 M/FT					5 M/FT		
MUD GAS		TOGRAPH I	DATA			· · · · · · · · · · · · · · · · · · ·			
	Total	C1	C2	C3	C4_	C5	Other		
Before	61	3101	413	220	25	NONE			
During	450	22886	3046	1623	183	TSTM			
After	74	3747	499	266	30	NONE			
Type gas increase: Gradual X Erratic Increase Decrease  Fluorescence: Mineral none poor fair X good fair good % in spl 70 color TR SLOW DIF									
Stain none poor X fair good live X dead res even spty X light X dark									
Porosity poor X good X Kind: INTXL-RR PP VUG									
LITHOLOGY DOL-lt-mbrn, micxl-micsuc, occ vfxl, sl anhy, shy ip, v sl slty; LS-crm-wh-tan, crpxl-mic									
xl-micsuc, sl	xl-micsuc, sl dol, cln, v sl anhy SAMPLE QUALITY: GOOD								
Notified <u>F</u>	KEN ROBER	гs	@	11:30	Hrs.	Date: _12	/13/95		
Remarks BEST DRILLING BREAK VERY THIN (3'); SAMPLE SHOW SLIGHTLY WEAK									

### **GEOLOGICAL SUMMARY**

### **AND**

### **ZONES OF INTEREST**

The Conley P. Smith Operating Co.'s, Foster Federal #19-13 well, was located in the SW SW of Section 19, T30S, R24E of San Juan County, Utah. Four Corners Drilling Rig #7 was rigged up on location on December 5, 1995, and drilling of an 12 1/4" hole was begun on December 5, 1995. Drilling continued to a depth of 1510' to run 8 5/8" surface casing. Drilling of a 7 7/8" hole was begun on December 8, 1995. Mudding up was begun on December 11, 1995 at 4250'. Drilling continued with halts at 3710' to work on the tail shaft and at 3806' for a new bit, to a depth of 4990' on December 13, 1995, where drilling was halted at the base of the Lower Ismay member of the upper Paradox Formation for DST #1. DST #1 was run on December 14, 1995. Drilling was resumed on December 14, 1995, and the well was drilled to a total depth of 5034' in the Paradox Formation (Gothic Shale member), where sample were circulated prior to running electric logs. Electric logs were run on December 15, 1995. Geological coverage was begun on December 8, 1995, at 2550' in the middle of the Cutler Formation. All tops used in this report are electric log tops.

### CUTLER 1858'-3300 (+3971')

The Cutler is of Permian age and overlays the Virgil (upper Honaker Trial) with a gradational contact. The Cutler is predominately a massive shale with interbedded siltstones, channel sands, scattered very thin fresh water limestones, and scattered minor cherts and anhydrite lens. The shales were predominately redorange to orange, occasionally redbrown, and vary colored, non to slightly calcareous, micaceous, slightly bentonitic, silty in part, occasionally sandy, with rare crystalline anhydrite inclusions. The siltstones were orange to redorange to redbrown, becoming brown to graybrown with depth, sandy, non to slightly calcareous, micaceous. The sandstones were predominate clear to translucent, some orange to redorange grains, very fine to medium grained, with some coarse grains, subangular to subround, well sorted, poorly cemented to unconsolidated, and occasionally arkosic. The thin limestones ranged in color from white to redbrown to pink to rose, and were cryptocrystalline, shalely to slightly silty, dense and tight. The rare thin cherts were clear to orange. The anhydrites were white, amorphic, crystalline and were predominately very thin interbeds in the shales.

The Cutler was 1442' thick in this well and is of no economic interest in this well.

### VIRGIL (UPPER HONAKER TRAIL) 3300'-3965' (+2529')

The Virgil (Upper Honaker Trail) is the upper member of the Hermosa group and is of upper Pennsylvanian age. The Virgil is predominately a cream to white to tan to light gray, occasionally tan to gray brown, cryptocrystalline to microcrystalline, slightly fossiliferous limestone and light gray, occasionally gray green, varicolored, non to slightly calcareous, occasionally silty shales. Interbedded in the limestones and shales were orange to red orange to red brown, light gray to light gray brown, non to slightly calcareous, sandy siltstones, and scattered thin very fine to medium, occasionally coarse grained, unconsolidated to medium cemented, argillaceous to calcareous, occasionally arksosic, sandstones.

The Virgel overlies the Missouri with gradational contact between the carbonaceous shale at the base of the Hermosa and the silty limestone at the top of the Missouri. The Virgil was 665' thick and is of no economic interest in this well.

### MISSOURI (LOWER HONAKER TRAIL) 3965'-4305' (+1864')

The Missouri (Middle to lower Honaker Trail) was perdominately a tan to dark brown, occasionally cream to off white to gray brown, cryptocrystalline to microcrystalline, tight, clean, slightly cherty, occasionally silty to sandy, slightly fossiliferous limestone. Interbedded in the limestone were siltstones, shales, and minor thin sandstones.

The shales were light to dark brown, medium to dark gray brown, slightly silty, calcareous, occasionally carbonaceous, and graded to v shalely marlstone in part. The siltstones were light to medium gray, and graybrown, sandy to very sandy, very limy grading to v silty limestone. Thin scattered translucent to brown to buff cherts, and thin clear to light gray, very fine to fine grained, clean to slightly arkosic, non to slightly calcareous, sandstones were also noted while drilling the Missouri.

The Missouri was 340' thick and there were no significant gas increases noted while drilling. The Missouri is of no economic interest in this well and gradationally overlays the Des Moines with a sharp electric log contact, but only a subtle change in the drill rate and samples.

### **DES MOINES** 4305'-4737' (+1524')

The Des Moines (lower Honaker trail) was picked in this well at the top of a medium to dark brown and medium to dark brown carbonaceous shale. The Des Moines in some reports is the middle to lower time designation from the top of the Paradox Formation to the base of the Pinker Trail Formation, all of Pennsylvanian age (see RMAG, 1981 Geology of the Paradox Basin; Facies Recognition And Hydrocarbon Potential Of The Pennsylvanian Paradox Formation; Reid and Berghorn, et al, pg 113). The Des Moines could be correlated to the Paradox Member of the lower Honaker Trail used by Celsius Energy and Ampolex (Texas), Inc. in the Blanding Basin area (sub basin) of the Paradox Basin to the south.

The Des Moines in this well was predominate tan to light gray to gray brown, cream to off white, cryptocrystalline to microcrystalline, clean to earthy, fossiliferous, slightly anhydritic, cherty, silty to occasionally very silty limestone. Interbedded in the limestone were shale, siltstones, and very thin cherts and sandstones. The shales were medium to dark brown, medium gray brown, mica, limy, carbonaceous and slightly sooty, and became black to dark gray, very carbonaceous to slightly dolomitic and sooty at the base. The siltstones were light gray to light gray brown to brown, limy, very slightly sandy, and graded to very silty limestone. The thin sandstones were translucent to clear to light gray, very fine grained, with siliceous to calcareous cement, slightly glauconitic and graded to very sandy limestone. The cherts were milky to translucent to clear to buff and were very thin lenses and nodules in the limestone.

The Des Moines overlay the Upper Ismay with a sharp contact between the basal black carbonaceous shale of the Des Moines and the tight slightly anhydritic limestone of the Upper Ismay. The Des Moines was 432' thick, had no significant gas increases noted while drilling, and is of no economic interest in this well.

#### <u>UPPER ISMAY 4737'-4852' (+1092')</u>

The Upper Ismay member of the Paradox Formation was a cream to brown, light gray brown to white tan, tight, dense, occasionally slightly anhydritic limestone, with thin interbedded medium to dark gray, gray brown, microcrystalline to very finely crystalline dolomite at the base. Scattered buff cherts, very thin black carbonaceous shales and light brown to gray brown, slightly sandy, limy siltstone were noted in the limestones. There was a thin 5' thick anhydrite were noted in the top of the upper Ismay from 4743' to 4748'. This was the upper most anhydrite of the two anhydrites, known as the "Rabbit Ear" anhydrites. A 21' thick anhydrite was noted from 4792' to 4813'. Below the anhydrite, from 4813' to 4852', was interbedded tan to cream to off white, cryptocrystalline to micro crystalline, slightly anhydritic, occasionally dolomitic, tight limestone and light to dark brown, gray brown, microcrystalline, earthy to shaley dolomite. The limestone and dolomite had no to very rare porosity, only dull mineral fluorescence, and no stain or cut. The limestone

and dolomite at the base of the Upper Ismay became increasingly shaley with depth, and graded into the Hovenweep Shale.

The Upper Ismay was 115' thick and is of no economic interest in this well.

#### HOVENWEEP SHALE 4852'-4885' (+977')

The Hovenweep shale underlies the Upper Ismay with a gradational contact between the shaley dolomite and limestone at the base of the Upper Ismay and the dolomitic shales of the Hovenweep. The shales were medium to dark gray to black, dolomitic, slightly limy to limy, silty, carbonaceous, sooty, slightly micaeous and, very slightly fossiliferous. The Hovenweep Shale had a gas increase of 150 units from a background 30 units.

The Hovenweep Shale was 33' thick in this well and is of no economic interest.

#### LOWER ISMAY 4885'-4987' (-865')

The Lower Ismay was interbedded medium to dark brown, medium to light gray brown, microcrystalline to cryptocrystalline, shaley to clean, tight dolomite and tan to cream to off white, cryptocrystalline to microsucrosic, silty to slightly anhdrite, dolomitic limestones with very rare porosity and visible florescence, stain or CUT in the upper 26'. From 4911' to 4957' the Lower Ismay was a 46' white to translucent, amorphic to crystalline, dense anhydrite. Below the anhydrite, the Lower Ismay was thin interbedded tight limestone and dolomite from 4957' to 4967'. Show #1 was from 4967' to 4985' in predominately a light brown to brown to light gray brown, microcrystalline to very finely crystalline, some microsucrosic, earthy to silty, slightly limy dolomite, with fair intercrystalline to rare pin point vuggular porosity, fair dull to a trace of bright yellow florescence, a trace of light brown stain and a trace of cut. Interbbed in the dolomites were thin cream to tan, microcrystalline to microsucrosic, anhydritic, limestone with poor interystalline porosity, very rare dull yellow florescence, no visible stain, and a very poor very slow cut. Show #1 had a gas increase of 450 units from a background of 61 units, and C1 through C4 on the chromatograph. The basal dolomite from 4885' to 4987' graded into the black carbonaceous shale of the Gothic Shale. See Show #1 report included with this report for further details. DST #1 was run from 4930' to 4990' with only gas and slightly oil cut drilling mud recovered in the sample chamber and drill pipe and very low formation pressures recorded.

The Lower Ismay was 102' thick and is of no economic interest in this well.

#### PARADOX FORMATION 4987'-5030' (+842')

The Paradox Formation (Gothic Shale in the southern part of the Paradox Basin) like the Hovenweep Shale is a very dolomitic, carbonaceous, sooty shale or more properly a sapropelic dolomite. The Paradox Formation overlays Paradox Salt with a sharp contact in this area, had an associated gas increase of 120 units from a background of 50 units. The Paradox Formation was of indeterminate thickness in this well, as the Paradox Salt was not penetrated in this well. The Paradox Formation is of no economic interest.

The Conly P. Smith Operating Co.'s Foster Federal #19-13 well was drilled to a total depth of 5034'-loggers depth (drillers depth: 5030') in the Paradox Formation on December 14, 1995. Electric logs were run on December 15, 1995. At the time of this report and the well has been plugged and abandoned.